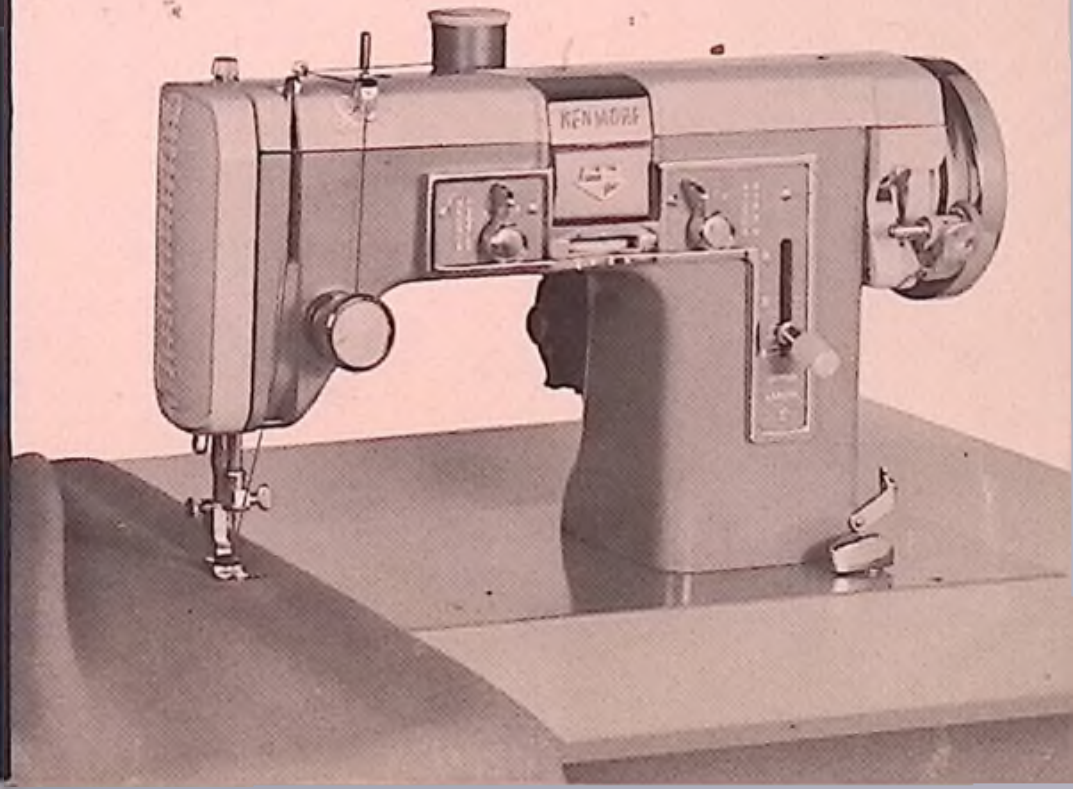
KENMORE

Automatic

SEWING MACHINE



Sears, Roebuck and Co.

Dear Homemaker:

This booklet has been written for you, to help you use and enjoy fully your KENMORE Automatic Zigzag Sewing Machine.

We urge you to read pp. 2-18 before using your machine. This section explains the operation of the special controls that allow you to do many tedious tasks automatically. The following pages offer suggestions and instructions for specific ornamental and time saving operations. See p. 11 before using the automatic patterns or zigzag stitch.

We feel the KENMORE Automatic Zigzag Sewing Machine is the finest of its kind and we are happy to offer help with any questions you may have regarding the machine.

Sincerely,

Jean Shaw

Jean Shaw, Director
Home Economics Laboratory
Department 817
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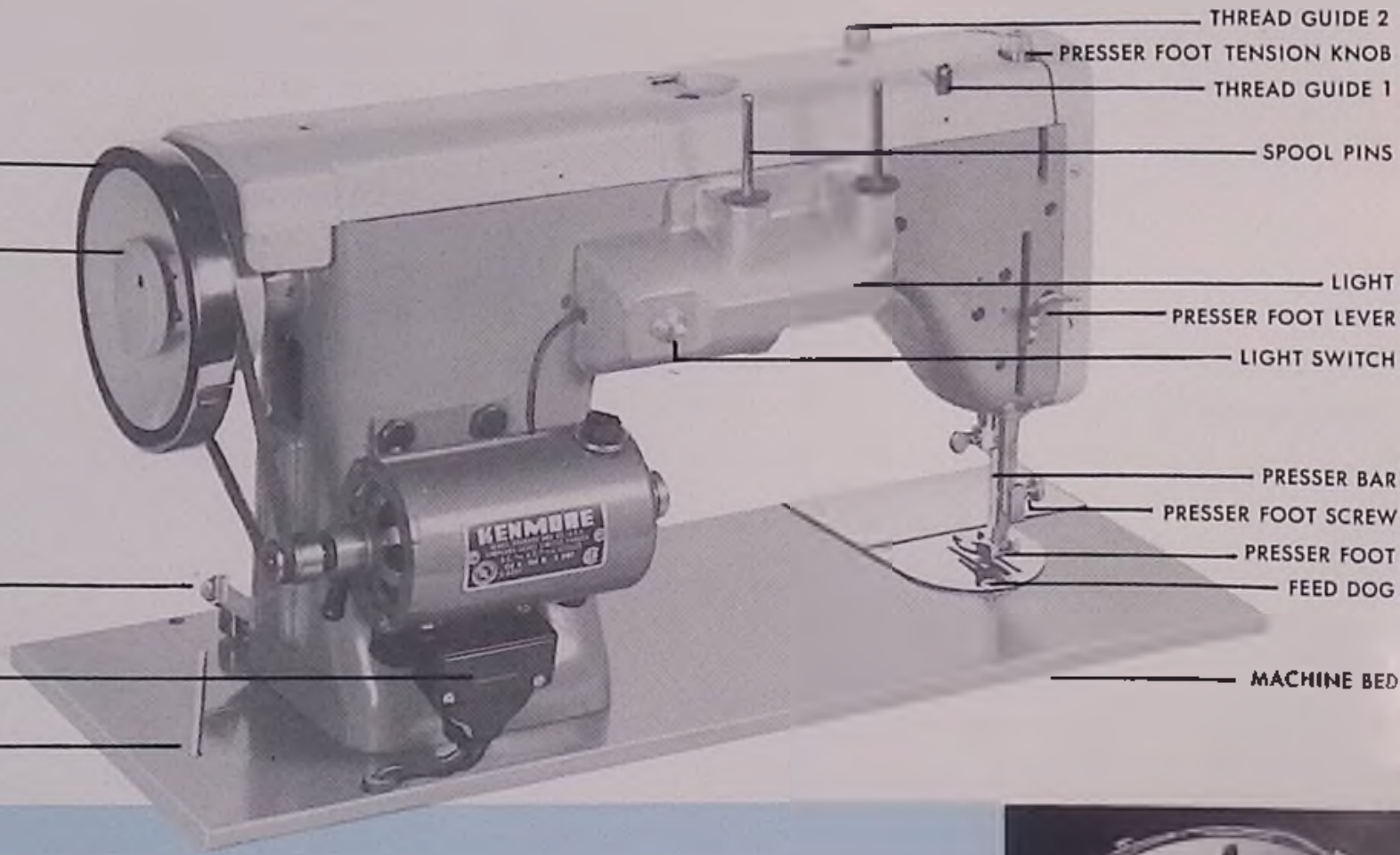
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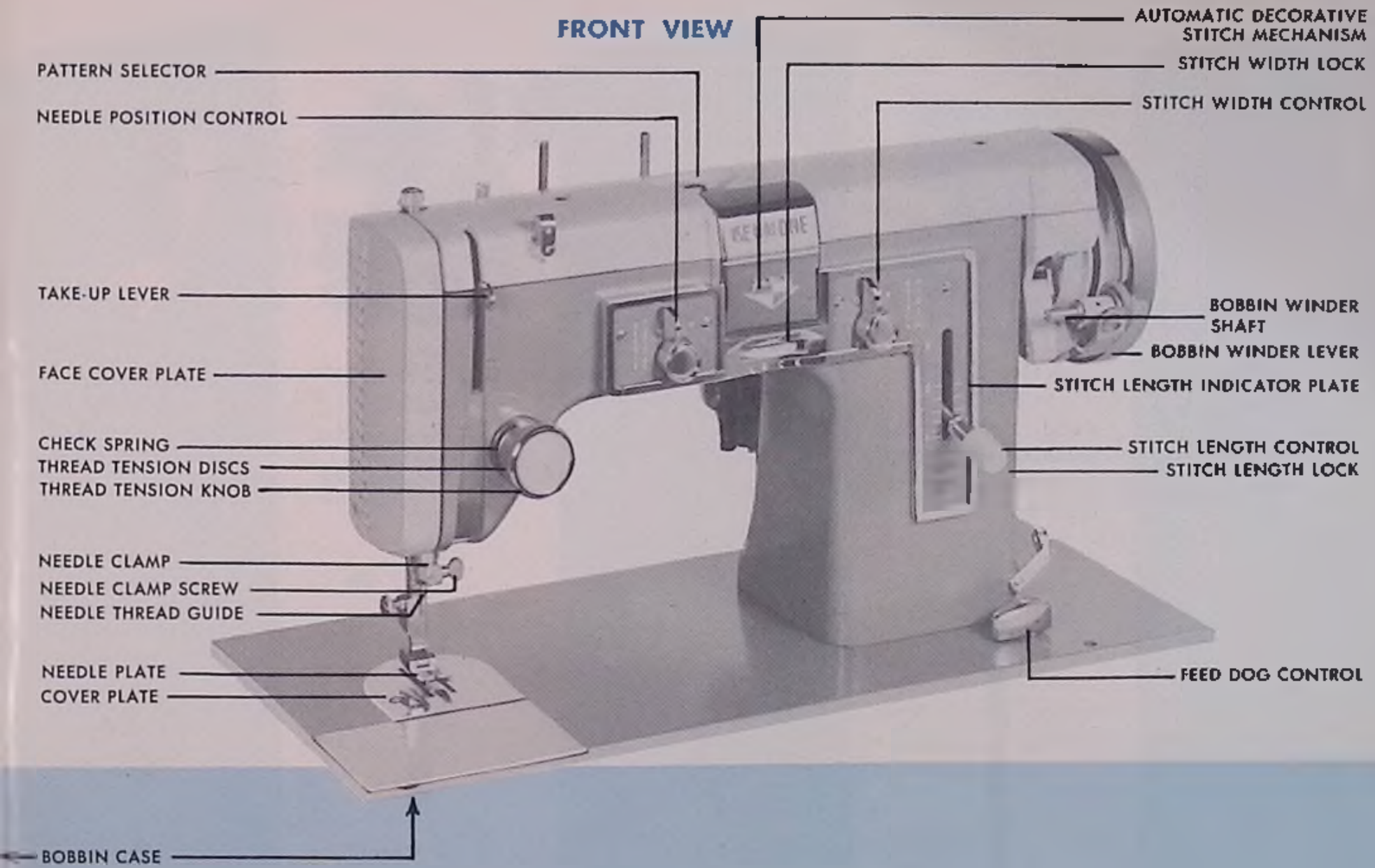
FEED DOG
THREE PRONG CONNECTOR PLUG
MACHINE BED
BOBBIN WINDER SPOOL PIN
KENMORE

FRONT VIEW


AUTOMATIC DECORATIVE STITCH MECHANISM
PATTERN SELECTOR
STITCH WIDTH LOCK
NEEDLE POSITION CONTROL
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TAKE-UP LEVER
BOBBIN WINDER SHAFT
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FACE COVER PLATE
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THREAD TENSION KNOB
NEEDLE CLAMP
NEEDLE CLAMP SCREW
NEEDLE THREAD GUIDE
NEEDLE PLATE
FEED DOG CONTROL
COVER PLATE
BOBBIN CASE

STANDARD FOOT

used for most straight and zigzag stitching.

SATIN STITCH FOOT

used for zigzag stitching when stitch length control is near 0.

APPLIQUE FOOT

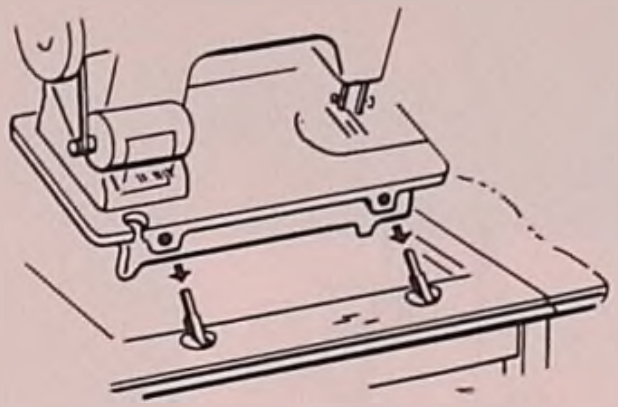
used for most techniques with a filler thread.

BUTTONHOLE FOOT

used for buttonholes, plain and with a filler thread.

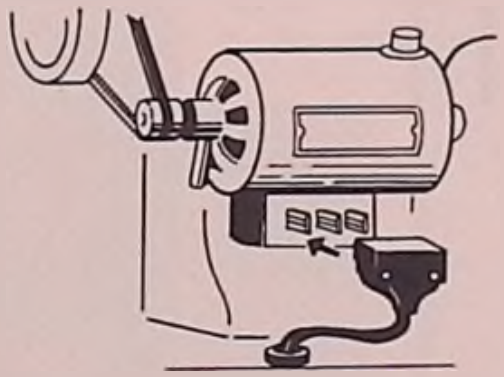
BUTTON FOOT

used to sew on buttons.



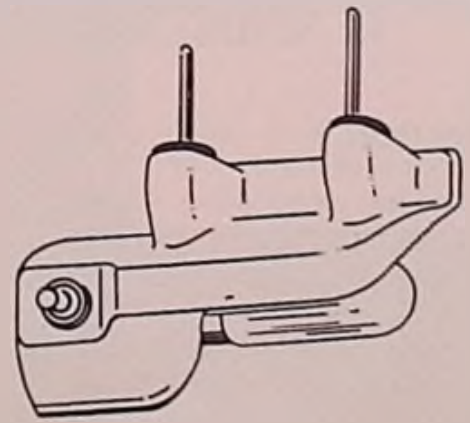
INSTALLING MACHINE HEAD

1. Loosen the two hinge screws under holes in the rear edge of the machine bed.
2. Raise hinge pins in the cabinet cutout. Slip machine head onto the pins and tighten hinge screws securely.
3. Lower machine head to front cabinet flap.



CONNECTING MACHINE

Push the plug onto three-prong connector under the machine motor. Plug machine cord into any 110-120V wall outlet.



MACHINE LIGHT

Light bulb is located under spool pins on the rear of machine arm. It may be turned on or off by pushing the button switch on the light shade.

To remove bulb, stand at rear of the machine. Twist bulb toward you and pull from socket. To replace, push it into socket and twist away from you.

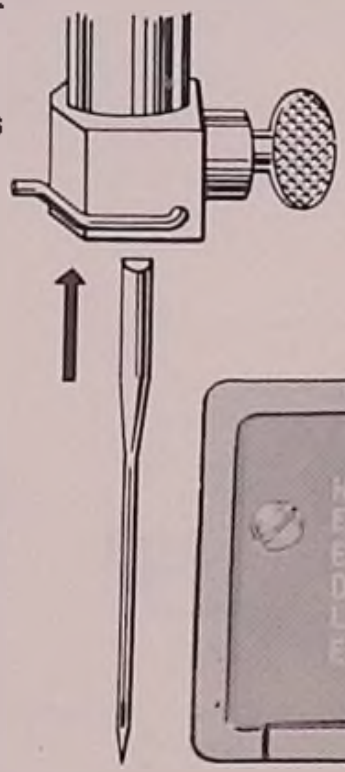
Needle and Thread

SETTING THE NEEDLE—Refer to Chart, p. 7, when choosing the correct needle for the stitching to be done.

1 Turn the hand wheel toward you until the take-up lever is at its highest point.

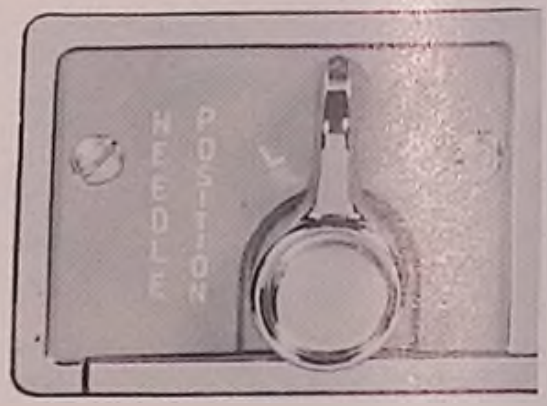
2 Hold the needle with flat side away from you.

3 Slip the needle as far as it will go into the needle clamp, and tighten the thumb screw.



SETTING NEEDLE POSITION—The needle bar should be at its highest point when adjusting needle position to avoid twisting or tearing the fabric. Set the needle position control to right, center or left for corresponding needle positions. When using a right or left needle position, check to see that needle enters the needle hole without touching the presser foot at both extremes of the zigzag stitch.

USE ONLY CENTER POSITION WITH DOUBLE NEEDLE. SEE PAGE 30



THREAD SELECTION

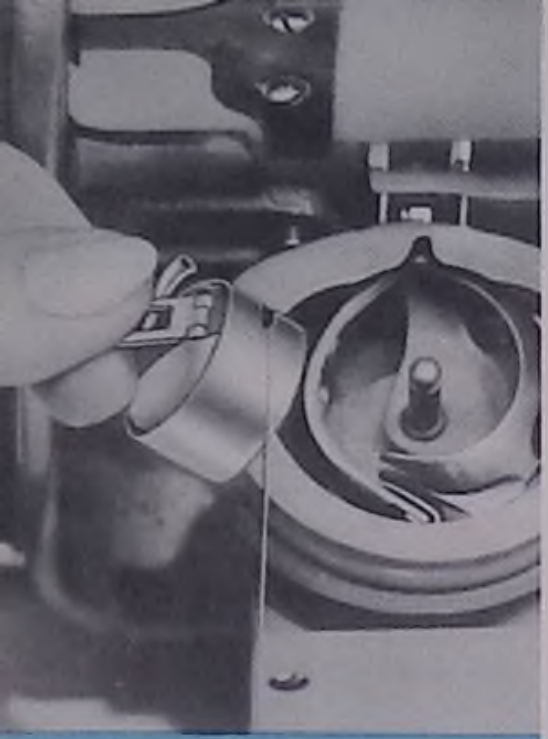
Use only top quality mercerized cotton, silk, nylon, or machine embroidery thread on your KENMORE. MERCERIZED MACHINE EMBROIDERY THREAD makes a much finer decorative stitch than mercerized sewing thread.

The size of thread you use depends on the fabric to be sewn. See the NEEDLE AND THREAD CHART, p. 7, for thread size to use for different weight fabrics.

Needle and Thread Table

THREAD SIZE	NEEDLE SIZE	STRAIGHT STITCH LENGTH	FABRIC
Cotton 80-100 Nylon A Silk A Machine embroidery	0	1-1½	Sheer cottons, silks, and nylons Fine laces
Cotton 60-80 Mercerized 50 Nylon A Silk A Machine embroidery	1	1½-2	Light to medium weight cottons Light to medium weight silks Medium weight nylons Light weight woolens
Cotton 40-60 Mercerized 50 Mercerized heavy duty	2	2-3	Heavy weight cottons Medium to heavy weight woolens Heavy drapery fabrics
Cotton 30-50 Mercerized heavy duty	3	3-4	Heaviest cottons as for men's work clothes Heaviest woolen coating

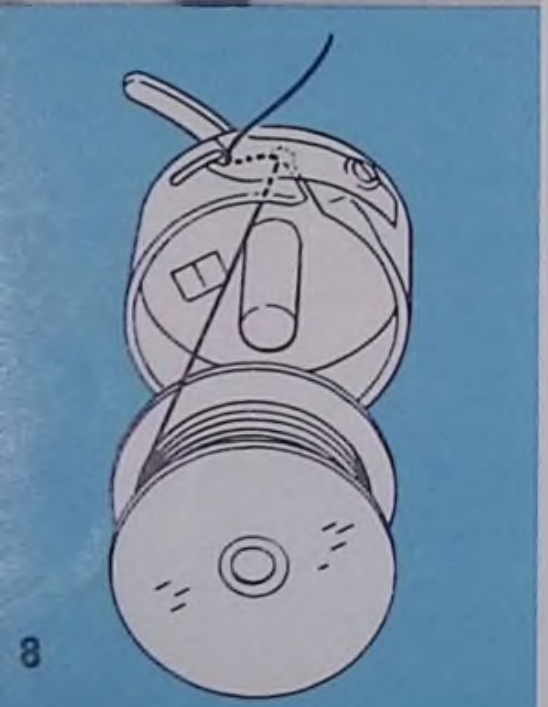
NOTE: To buy additional needles at your nearest Sears and Simpsons-Sears retail or mail order store, specify part no. 6021.



REMOVING AND REPLACING THE BOBBIN CASE

Raise needle to its highest point by turning hand wheel toward you. Grasp bobbin case latch as illustrated, and lift case and bobbin out. Release latch and bobbin may be removed.

To replace bobbin case, reverse this process. Hold bobbin case by the latch, with thread coming from the top, and slip case onto center pin until it *snaps* into position.



THREADING THE BOBBIN CASE

1. Hold bobbin case with open side toward you.
2. Slip bobbin into case with thread coming from left to right over top of bobbin.
3. Draw bobbin thread into the slot, under the tension spring and out through the small hole in the case, as illustrated.
4. Allow 4 inches of thread to hang free.

Winding the Bobbin

1. Hold the hand wheel with your left hand and turn the clutch release toward you with your right hand.

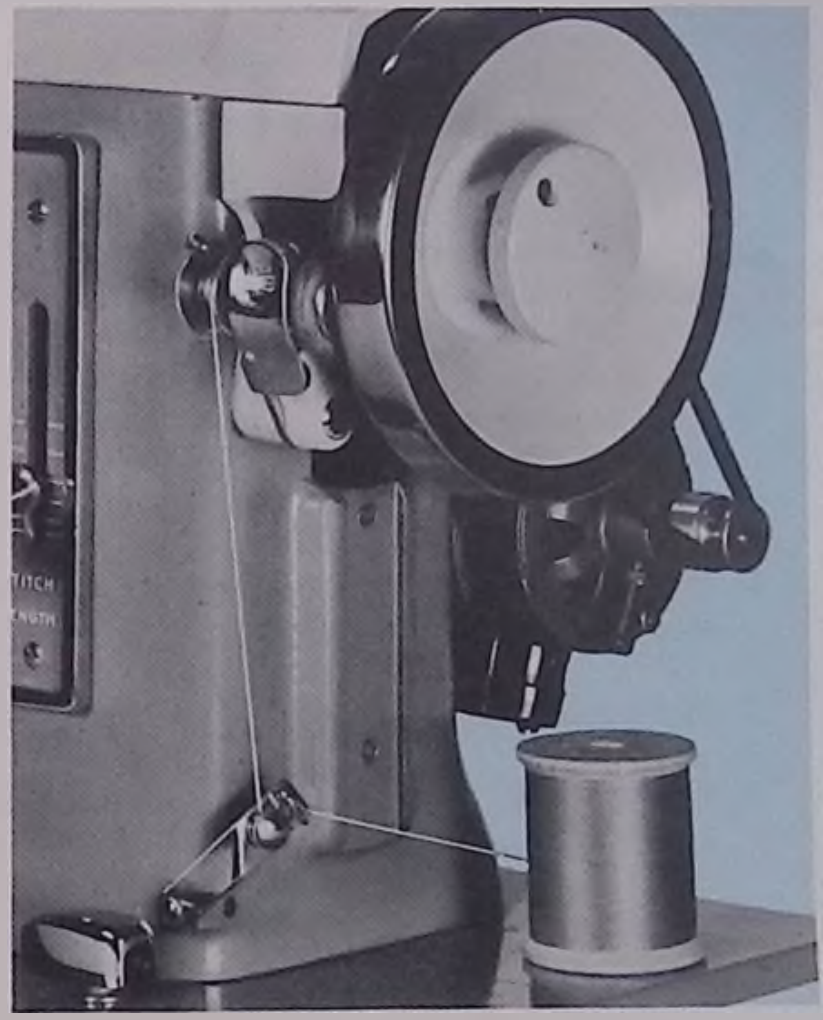
2. Slip the bobbin on the bobbin winder shaft.

3. Place thread on the base spool pin. Draw thread from back to front under the bobbin winder guide and tension discs. Bring thread up and wind the end around the bobbin several times from front to back.

4. Snap bobbin winder lever down to hold bobbin. Press foot control to start winding action. When the bobbin is full, winding mechanism will release automatically.

5. Cut the thread and remove bobbin from the shaft.

6. Tighten clutch release by holding hand wheel with the left hand and turning knob away from you.



Upper Threading

To thread the upper part of your machine, presser foot must be up, take-up lever at its highest point, and thread on either spool pin.

1. Draw thread from back to front through slot in guide 1.

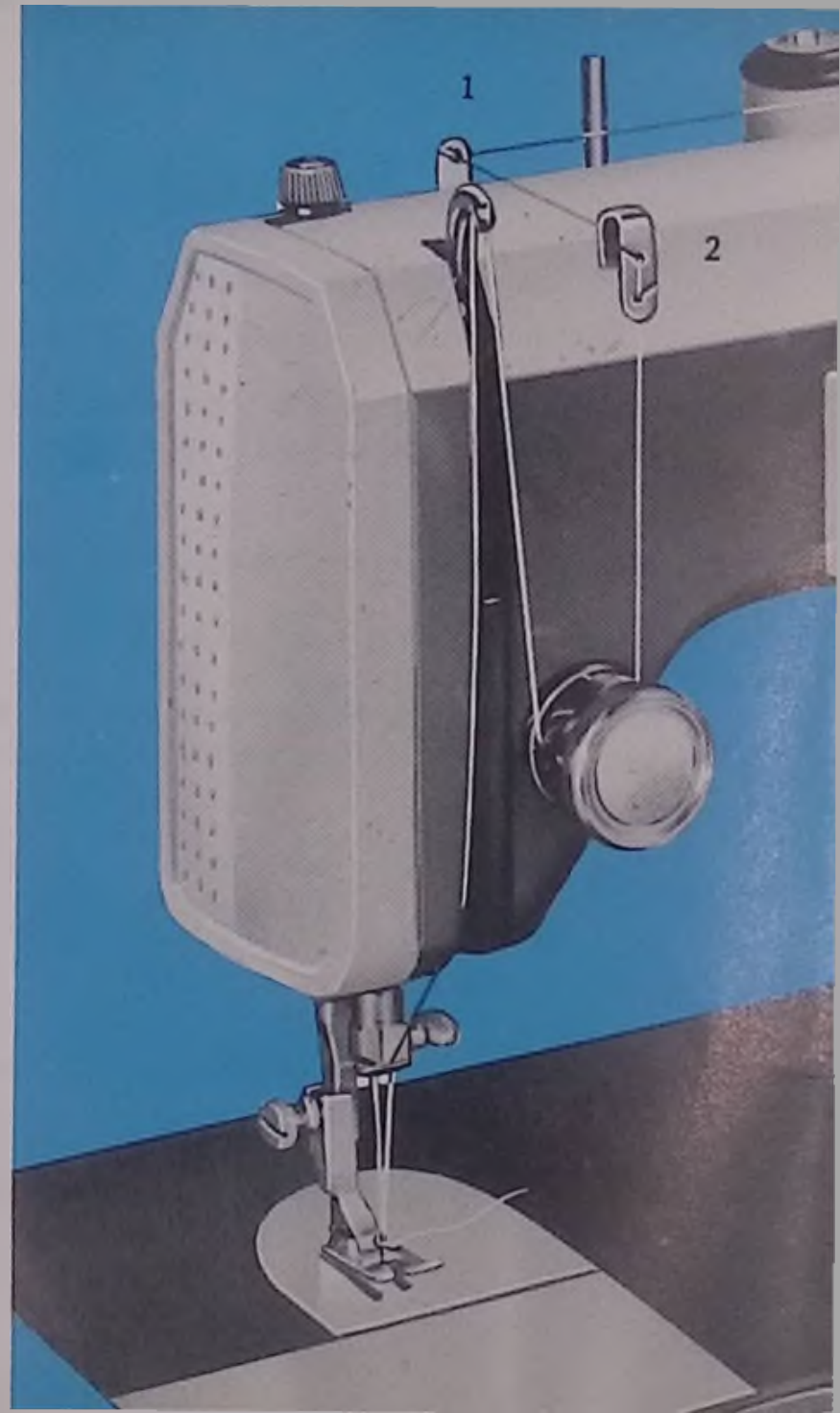
2. Bring thread forward on the right of thread guide 2. Slip thread under guide into upper slot from left side and into lower slot from right.

3. Pass thread from right to left under tension mechanism. Place thread either in front or in back of the center tension disc.

4. Pull thread against tension spring and thread from right to left through hole in take-up lever.

5. Draw thread down behind guide on needle clamp.

6. Thread needle from front to back. Pull several inches of thread through needle.



Remember

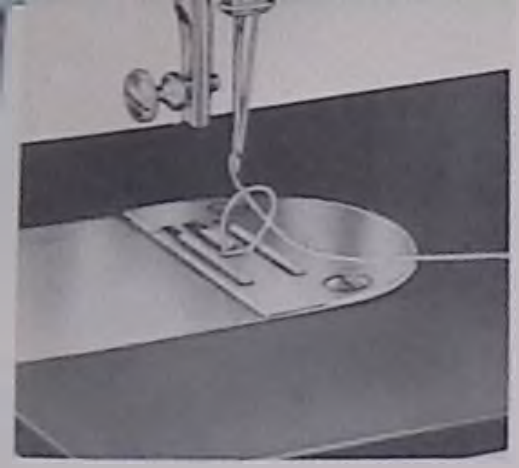
TO CHECK THE FOLLOWING CONTROLS:

WHEN STRAIGHT STITCHING

	PAGE
1. Needle position control — usually center.	6
2. Pattern selector-zigzag.	12
3. Stitch width control-0.	14
4. Stitch width lock-0.	14
5. Stitch length control — as recommended on chart, page 7.	13
6. Feed dog control — position 1.	15

WHEN ZIGZAG STITCHING

1. Needle position control — usually center.	6
2. Pattern selector-zigzag setting. (Use "1", "2", and curve stitch settings only when sewing automatic decorative stitches).	12
3. Stitch width control — at selected width.	14
4. Stitch width lock — same number as stitch width control.	14
5. Stitch length control — varies with operation.	13
6. Feed dog control — position 1.	15



PICKING UP BOBBIN THREAD

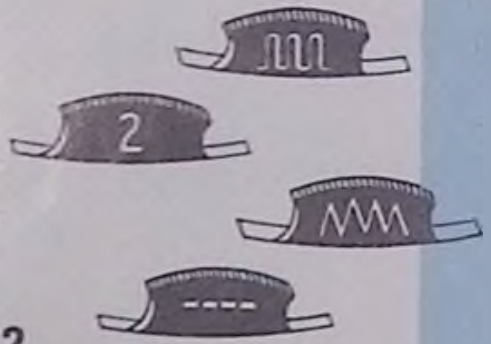
1. Set stitch width control on 0 and hold end of needle thread loosely in left hand. Turn hand wheel toward you so needle enters the needle plate hole and returns to its highest point.
2. Draw bobbin thread loop through needle plate, by pulling up on needle thread.
3. Place both threads back under presser foot.

TURNING A CORNER

Stop machine with needle still in fabric. Raise presser foot. Turn fabric to desired direction. Lower presser foot and continue stitching.

REMOVING FABRIC

When you finish stitching, turn hand wheel toward you until take-up lever reaches its highest point. THIS IS IMPORTANT. Raise presser foot and draw fabric away from you. Cut thread on rear edge of presser bar.



PATTERN SELECTOR

The pattern selector has five settings and turns from right to left. *The zig zag setting is used on all operations except straight stitching, automatic pattern stitching and the curve stitch.*

*There are eighteen patterns (two on each of nine discs) illustrated and explained on pages 32 and 33.

SETTING STITCH LENGTH

Unscrew stitch length lock.

Move stitch length control lever to the desired position between 0 and F on the lower half of the stitch length indicator plate. The F setting is the longest stitch. The size stitch you select will depend on the fabric you are sewing. See chart on page 7. Recommended stitch lengths are given in numbers which refer to the markings between "0" and "F" as illustrated here. Tighten stitch length lock so that forward and reverse stitches will be the same setting.

REVERSE STITCHING

Move lever up until it stops. Move lever down to original position for forward stitching.

It is best to begin and end most seams with reverse stitching, often called back tacking.

FASTENING A SEAM

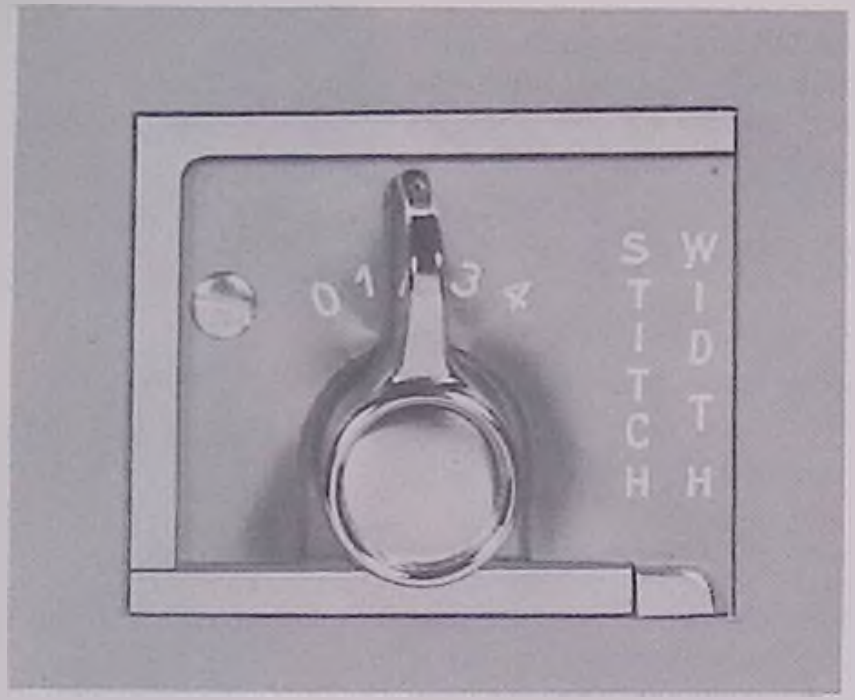
Be sure both threads are drawn back under the presser foot. Lower needle into fabric about ½ inch from beginning of seam. Push stitch length regulator up for reverse stitching. Stitch in reverse until needle reaches beginning of seam.

Move stitch length regulator down for forward stitching and complete seam. When you reach the end, raise the stitch length regulator and sew back over ½ inch of completed seam.

BASTING

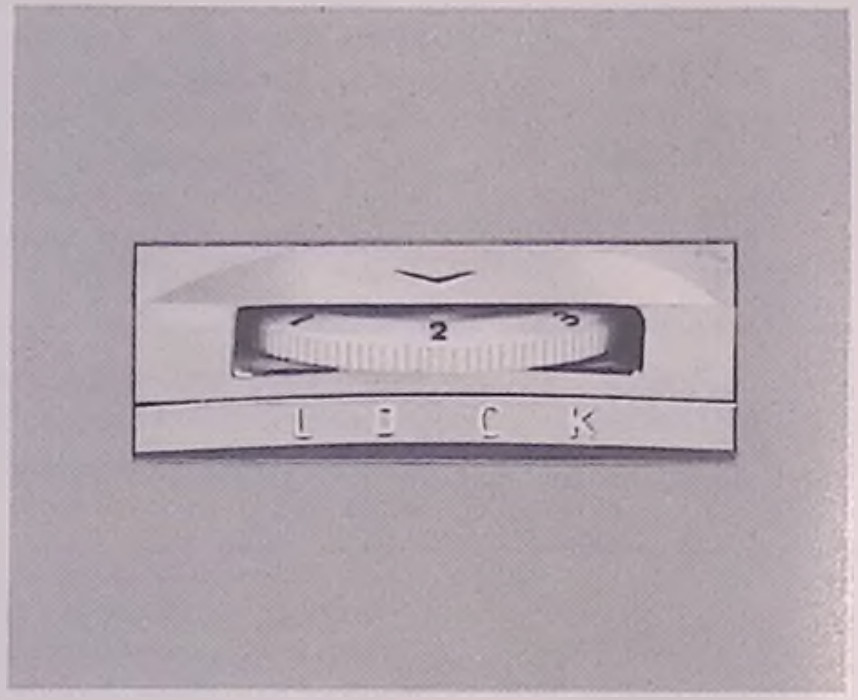
Set the stitch length regulator at F for the longest possible stitch. Basting is easily removed by pulling one thread.

If you prefer to use pins for basting, your KENMORE will sew over the pins. Be sure to keep the pins at right angles to the seam and the head of the pin away from the presser foot.



SETTING STITCH WIDTH

Move stitch width control to the desired position between 0 and 4 on the stitch width indicator plate. Zigzag stitch width increases from 1 to 4. Straight stitching is possible only with control on 0.



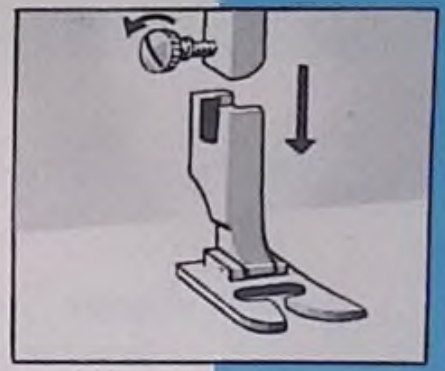
LOCKING STITCH WIDTH

The stitch width lock has six positions—0, 1, 2, 3, 4, and buttonholes. Turn the lock to the desired stitch width setting. This limits the maximum width so that the regulator may only be moved between 0 and the number selected.

Buttonhole setting locks the stitch width at 4 and provides a partial stop at 2.

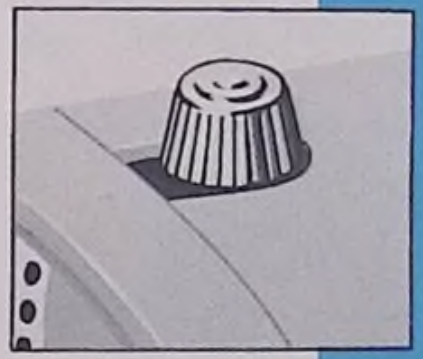
CHANGING THE PRESSER FOOT

Loosen presser foot screw with the large screw driver. Slip presser foot to the left and forward until it is free. Reverse procedure to replace presser foot. Tighten screw with the screw driver.



CHANGING PRESSURE ON PRESSER FOOT

It is rarely necessary to change the pressure on the presser foot. For those operations that require it, screw the foot pressure knob down for increased pressure and up for reduced pressure. There should be just enough pressure on the foot to allow the fabric to move along easily, and to prevent it from rising with the needle. If one or both plies of fabric ripple, increase the foot pressure. If foot marks the fabric, decrease the foot pressure.



DROPPING THE FEED DOG

The feed dog control at the right front corner of the machine bed has three positions, as illustrated.

Position 1 is for general stitching with the feed dog in operation.

Position 2 lowers and holds the feed dog down until you reset the control to position 1. Position 2 may be used for darning and buttons.

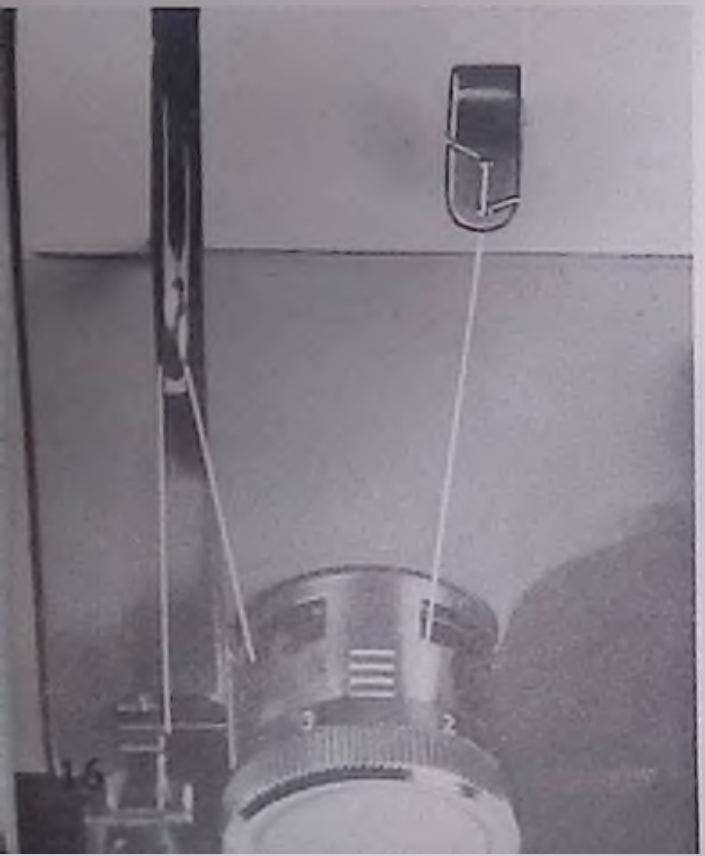
Position 3 lowers the feed dog temporarily, while you press on the control. This position is sometimes used for decorative stitching, and for locking stitches.

Figure 1
A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom.

Figure 2
When upper thread lays on top of fabric in a straight line, upper tension is tighter than lower tension. *Loosen upper thread tension.*

Figure 3
When bobbin thread lays on the bottom of the fabric in a straight line, lower tension is tighter than upper tension. *Tighten upper thread tension.*

When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension is pre-set, and rarely requires adjustment for general sewing. However, if stitch is satisfactory, as in Fig. 1 and seam is badly puckered, the cause may be tight tensions, and both must be adjusted.

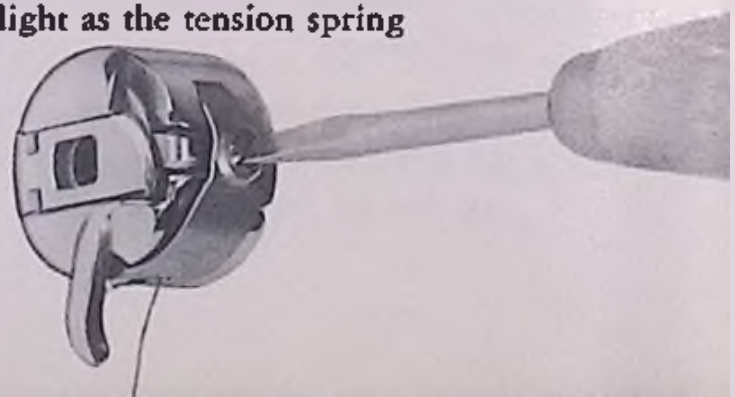


CHANGING UPPER THREAD TENSION

To tighten or increase the tension on the upper thread, turn tension knob to the right. To reduce tension, turn knob to the left. The tension knob has a range of *10* revolutions.

CHANGING BOBBIN THREAD TENSION

Remove bobbin case as described on Page 8. To increase bobbin thread tension turn spring screw to the right with small screw driver. To decrease bobbin tension turn spring screw to the left. Any adjustment of the bobbin tension should be slight as the tension spring is very sensitive.



RESETTING BOBBIN THREAD TENSION

If you should get the bobbin case far out of adjustment, the following method will help you reset the correct tension.

1. Begin with a full bobbin of #50 mercerized sewing thread, properly threaded into the case, and a loose bobbin thread tension.

2. Tighten the spring screw gradually until bobbin case and full bobbin can be lifted from your hand by the end of the bobbin thread.

3. Make a row of bias stitching on a double thickness of fabric. If fabric puckers —both tensions are too tight.

   Hold row of stitching taut between thumb and forefinger of each hand. Pull evenly with both hands until one or both threads break.

a. If both threads break—tensions are in proper balance.

b. If neither thread breaks—both tensions are too loose.

c. If only upper thread breaks—upper tension is too tight.

d. If only lower thread breaks—upper tension is too loose.

Synthetics

Your KENMORE will sew all the new fabrics of synthetic fibers, such as nylon, *Orlon, **Dacron, rayon, acetate, blends of these, and combinations of synthetic and natural fibers. When stitching a fabric of blended or combined fibers, handle it as you would a material of the fiber present in the largest percentage. For example, a fabric woven of 60% Orlon and 40% silk should be handled as one made entirely of Orlon.

When stitching a fabric that is over 50% synthetic fiber, remember:

a Select patterns of the loose fitting type with cap or kimono sleeves, because most synthetic fiber fabrics cannot be eased with steam pressing, and are not absorbent.

b Use a synthetic thread.

c Use a fine needle as recommended in chart on page 7.

d Wind the bobbin in the usual way, but do not pass thread between tension discs. Guide thread by hand for a smoothly wound bobbin.

e Set the stitch length as recommended for a similar weight cotton (page 7). Also, try some longer and shorter stitches. Choose the stitch length that gives the most satisfactory seam.

f Check thread tensions by sewing on a double thickness of the fabric to be used. Usually the upper thread tension must be loosened. Sometimes both bobbin and upper thread tension must be loosened. (page 16)

SEWING ON PLASTIC FILMS

Set the machine with normal thread tensions and a large size stitch. Use a fine needle and mercerized thread. Hold plastic pieces together with cellophane tape or paper clips rather than pins. Sew corners slightly rounded rather than square.

*Trademark for DuPont's Acrylic fiber. **Trademark for DuPont's Polyester fiber.

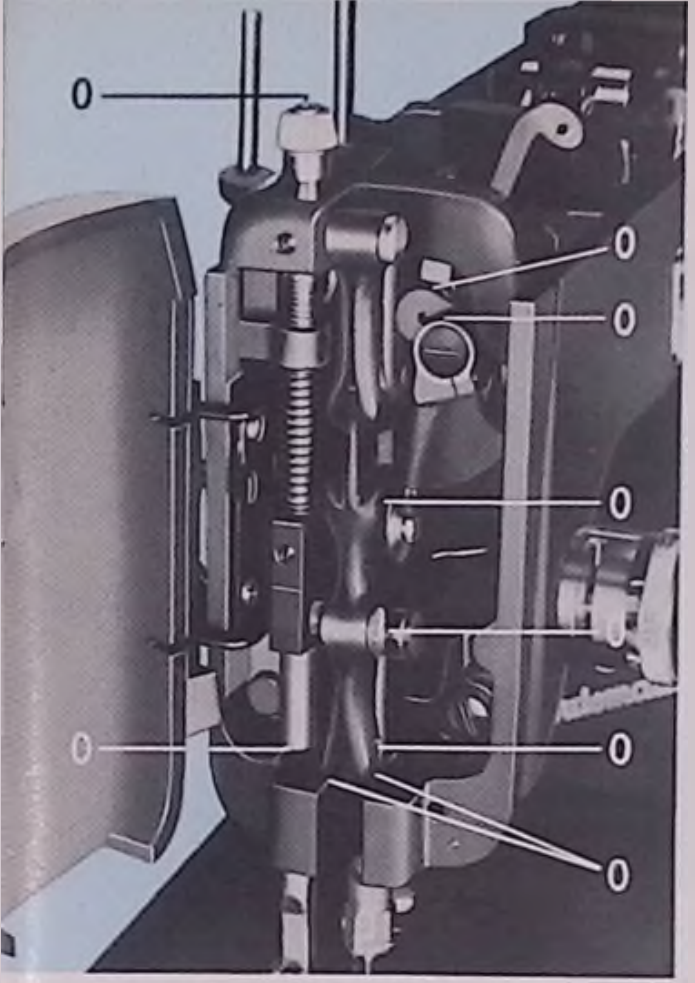


Figure A

Swing hinged face cover plate open to oil points indicated at end of machine head.

Cleaning

AND OILING....

Keep the moving parts free from dust and threads for quiet and efficient operation. Cleaning should be done with a small brush; never with a sharp or pointed tool.

When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated in figs. a, b, c.

Remove two retaining screws and left arm cover plate off to oil points indicated at top of machine head.

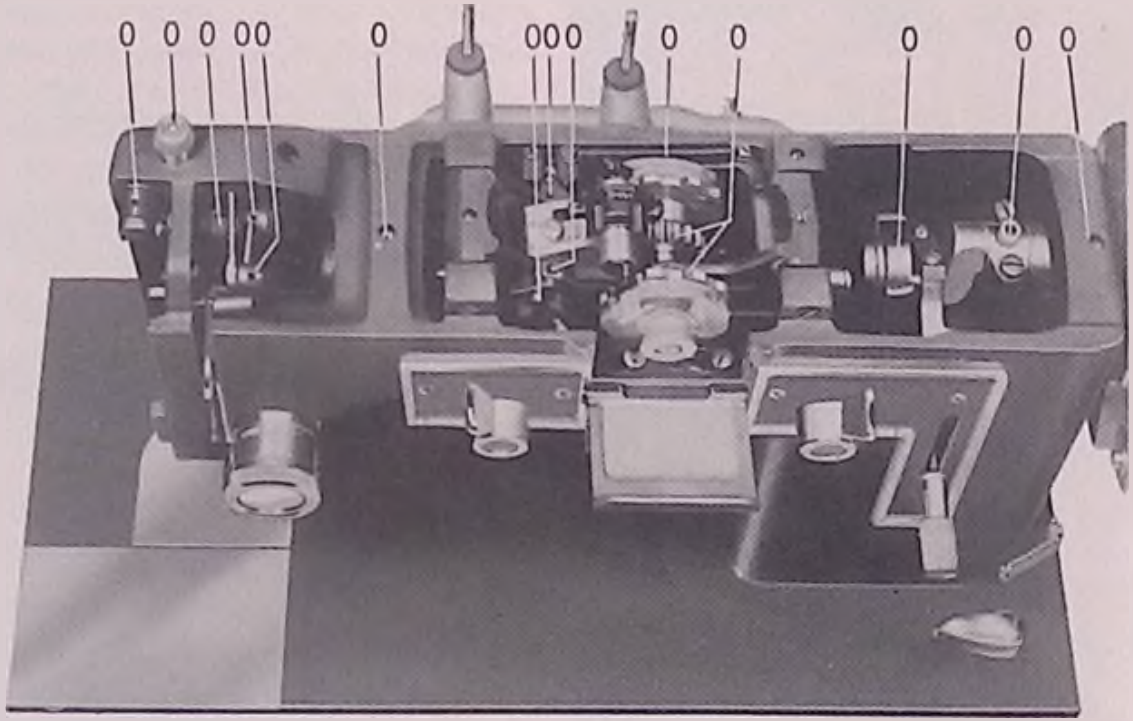


Figure B

It may be necessary to clean the shuttle area occasionally.

1. Raise the takeup lever to its highest point and remove bobbin case.
2. Press lever (1) to release race cover. Lift out hook by center pin.
3. Brush, remove lint and threads from shuttle race.
4. Put a drop of oil on center pin, on back of shuttle and on front of shuttle race.

1—Shuttle Assembly

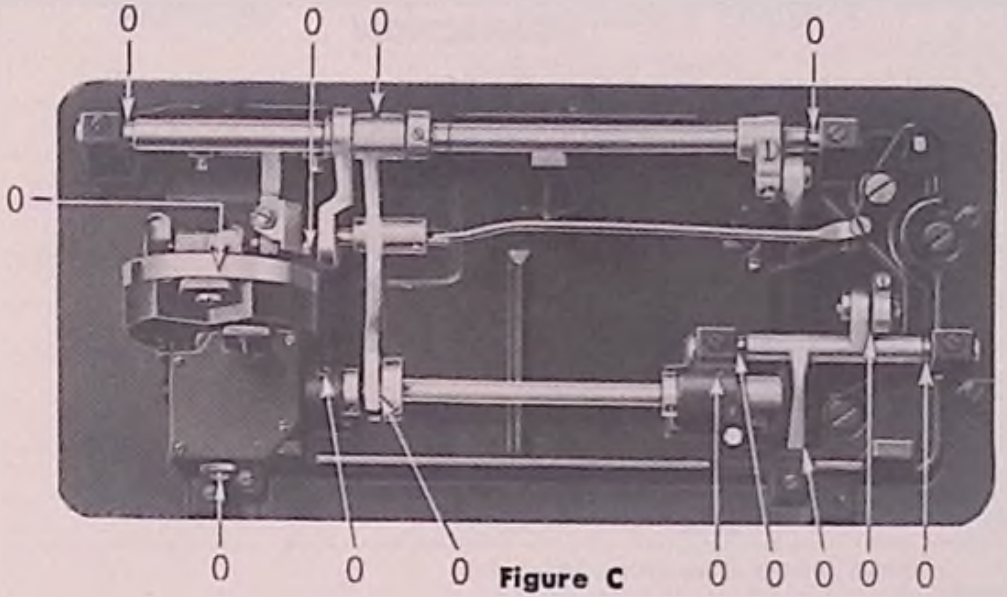


Figure C

Tilt machine head back to oil points indicated on under side of machine head.

J—Hook

K— Bobbin Case

L—Hook Race

To reassemble, hold hook by center pin and fit carefully into assembly opposite the hook driver. Close shuttle race cover.

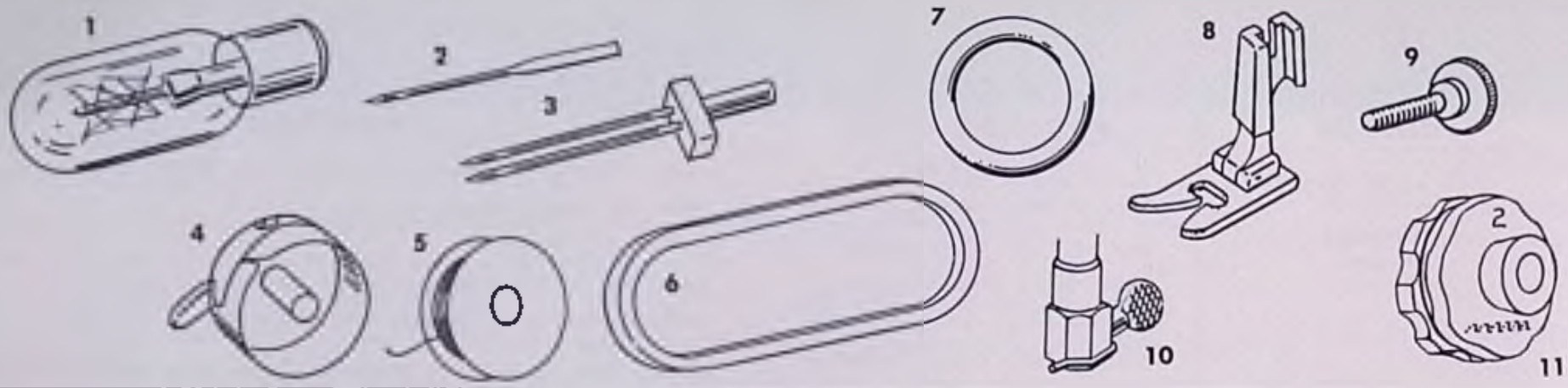
Occasionally remove the needle plate and clean feed dog with a soft brush.

PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular Stitches	Incorrect size needle.	Choose correct size needle for thread and fabric (page 7).
	Improper threading.	Rethread machine (page 8 and page 10).
	Loose upper thread tension.	Tighten upper thread tension (page 16).
	Pulling fabric.	Do not pull fabric; guide it gently.
	Light pressure on presser foot.	Increase pressure on presser foot (page 15).
	Loose presser foot.	Reset presser foot (page 15).
	Unevenly wound bobbin.	Rewind bobbin (page 9).
Breaking Needles	Pulling fabric.	Do not pull fabric; guide it gently.
	Incorrect size needle.	Choose correct size needle for thread and fabric (page 7).
	Incorrect setting of needle.	Reset needle (page 6).
	Loose presser foot.	Reset presser foot (page 15).
	Incorrect needle position (with double needle only).	Reset needle position to center (page 6).
	Too wide stitch width. (with double needle only).	Check needle drop
Bunching of Thread	Upper and lower threads not drawn back under presser foot.	Draw both threads back under presser foot (page 12).
	Feed dog down.	Raise feed dog (page 15).
Puckering	Incorrect thread tension(s).	Reset thread tension(s) (page 16 and page 17).
	Light pressure on presser foot.	Increase pressure on presser foot (page 15).
	Using two different sizes or kinds of thread.	Upper thread and bobbin thread should be same size and kind.
	Bent or blunt needle.	Insert new needle (page 6).
	Loose presser foot.	Reset presser foot (page 15).
	Fabric too sheer or too soft.	Use underlay of tissue paper or tarleton when stitching.

to Do

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	Incorrect size needle.	Choose correct size needle for thread and fabric. (See page 7)
	Bent or blunt needle.	Insert new needle (page 6).
	Incorrect setting of needle.	Reset needle (page 6).
	Tight upper thread tension.	Loosen upper thread tension (page 16).
	Light pressure on presser foot.	Increase pressure on presser foot (page 15).
Breaking Upper Thread	Starting with take-up lever in low position.	Take-up lever must be in highest position when starting to sew.
	Starting to stitch too fast.	Start to stitch at a medium speed.
	Improper threading.	Rethread machine (page 8 and page 10).
	Tight upper thread tension.	Loosen upper thread tension (page 16).
	Incorrect size needle.	Choose correct size needle for thread and fabric (page 7).
	Sharp eye in needle.	Insert new needle (page 6).
	Wide stitch width setting (when picking up bobbin thread only).	Set stitch width regulator at 0 when picking up bobbin thread (page 12).
Breaking Bobbin Thread	Improper bobbin case threading.	Check bobbin case threading (page 8).
	Tight bobbin thread tension.	Loosen bobbin thread tension (page 16).
	Lint in bobbin case or shuttle.	Clean bobbin case and shuttle (pages 20-21).
Fabric not Moving	Feed dog down.	Reset control to "1" (page 15).
	Light pressure on presser foot.	Increase pressure on presser foot (page 15).
	Threads knotted under fabric.	Place both threads back under presser foot before beginning to stitch.
Machine Jamming	Thread caught in shuttle.	Disassemble and clean shuttle (pages 20-21).

Note: See summary of proper control settings for straight or zigzag stitching—page 11.



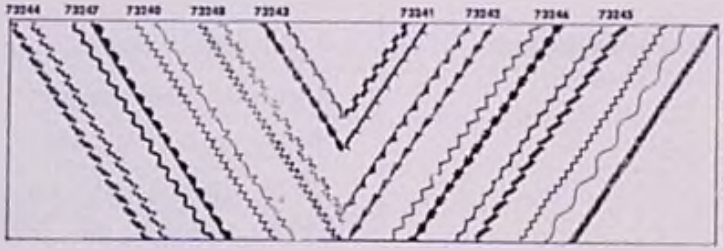
Parts List

All parts listed here may be ordered through Sears or Simpsons-Sears retail or mail order stores. When ordering by mail, prices will be furnished on request, or parts will be shipped at prevailing and you will be billed accordingly.

When ordering repair parts, always give the following information:

1. Part number 2. Part name
3. Model and serial numbers of your machine.

These two numbers, on the front base of the machine, are easily seen when the head is tilted back.



See pages 32 & 33 for pattern illustrations.

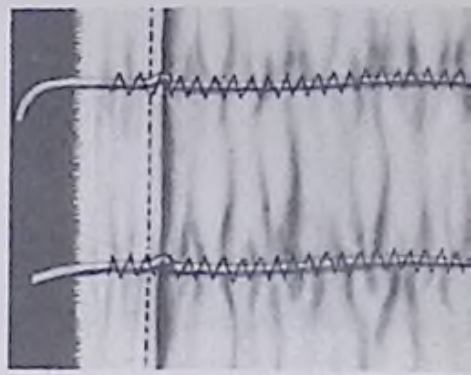
Ref. No.	Part No.	Part Name
1	3818	Light Bulb
2	6021	Needle
3	6026	Double Needle
4	60415	Bobbin Case
5	60520	Bobbin
6	60020	V Belt
7	2932	Bobbin Winder Tire
8	8190	Presser Foot
9	1985	Thumb Screw for Presser Foot
10	8211	Needle Clamp w/Thumb Screw

Ref. No.	Part No.	Part Name
11	73239	Pattern Disc Set
	73244	Pattern Disc Set "E"
	73247	Pattern Disc Set "H"
	73240	Pattern Disc Set "A"
	73248	Pattern Disc Set "J"
	73243	Pattern Disc Set "D"
	73241	Pattern Disc Set "B"
	73242	Pattern Disc Set "C"
	73246	Pattern Disc Set "G"
	73245	Pattern Disc Set "F"

SHIRRING WITH ELASTIC THREAD

Applique foot	
Stitch width	2
Stitch length	1
Needle position	Center

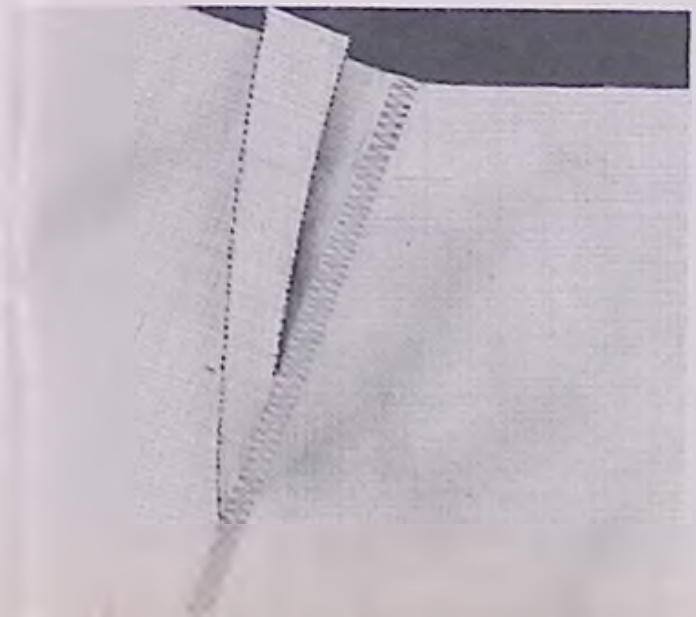
Draw elastic thread through small hole in center of foot. Zigzag stitch over elastic. Adjust fullness by pulling edge of elastic. To fasten elastic thread, straight stitch a small tuck across each end, on the wrong side.



LINGERIE ELASTIC

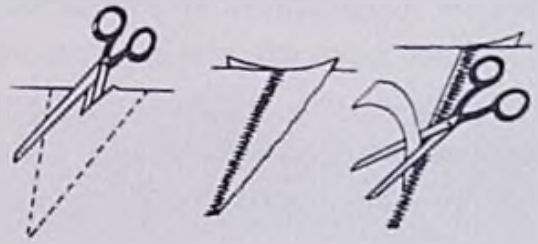
Standard foot	
Stitch width	2 to 3
Stitch length	1
Needle position	Center

Stretch elastic while zigzag stitching to fabric.



SHAPING DARTS IN INTERFACINGS

Standard foot	
Stitch width	3
Stitch length	½
Needle position	Center

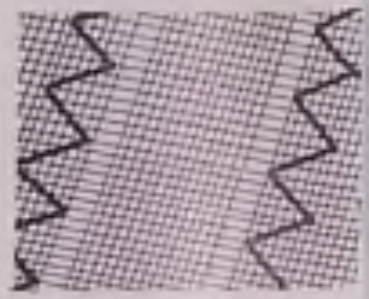


Cut interfacing down center between dart lines. Overlap cut edges, matching dart lines. Zigzag stitch along marking line from point to wide end of dart. Trim both raw edges close to stitching.

Hemstitching

Standard foot	
Stitch width	2-3
Stitch length	1-1½
Needle position	Left

Draw two threads from fabric, on each side of desired depth of hemstitching. Zigzag stitch along drawn thread line so needle enters fabric on one side of Zigzag stitch and drawn thread line on the other. When one edge of the hemstitching is sewn, turn fabric and stitch second side similarly. Match lines of stitching, as illustrated. Draw threads between the two rows of stitching to complete the hemstitching.



Fringe

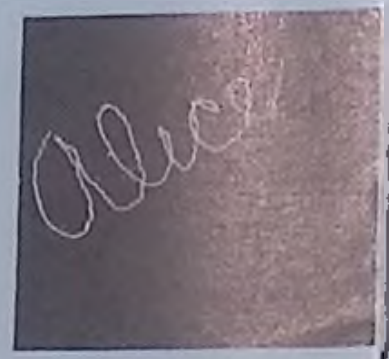
Set machine controls as for hemstitching.

Decide on fringe length and draw one thread that distance from the raw edge of the fabric. Lower needle and stitch along the drawn thread line, as for hemstitching. Unravel all threads from the raw edge to the line stitching.

Writing and

FREE HAND

Stitch width	0 to 4
Feed Dog	Position 2



Draw initials or words to be sewn, on fabric and fit fabric into embroidery hoops. *Writing* is done with either zigzag or straight stitching.
Remove presser foot. Set stitch width for straight or zigzag stitches, as desired. Slip hoop and fabric under the needle, lower presser bar and take one stitch to raise bobbin thread through fabric. Using a medium speed, stitch along marked outline, guiding fabric carefully by hand.

Applique

Baste cut-out applique to fabric.

Applique foot	
Stitch width	2 to 4
Stitch length	Near 0
Needle position	Center

Zigzag stitch around applique, completely covering the raw edge.

Monograming

BLOCK STYLE

Satin Stitch Foot	
Stitch width	2 to 4
Stitch length near	0
Pattern selector zigzag	1 or 2

Mark letters or monogram on fabric and place in embroidery hoops. Monograming is done with either a satin stitch or automatic decorative stitch.

Slip hoop and fabric under needle and attach Satin stitch presser foot. Lower presser foot and take one stitch to raise bobbin thread. Using a medium speed, stitch along blocked outline.

Applique WITH A FILLER THREAD

Baste applique material to fabric.

Set machine controls as for plain applique.

Feed filler thread from front to back into hole in applique foot before attaching foot to the machine. Pull filler thread back under foot. Stitch as for plain applique, allowing filler thread to slide through your fingers.

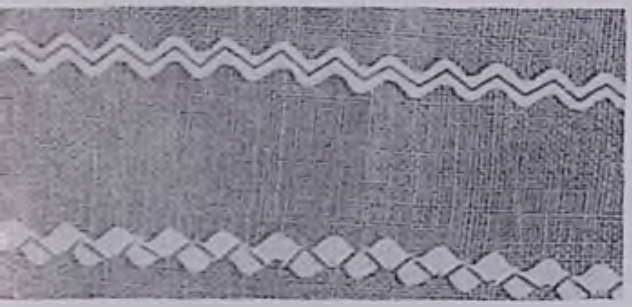
Braiding

YARN AND CORD

Applique foot
Stitch width 2 to 4
Stitch length 1½ to 5
Needle position Center

Mark pattern on right side of fabric. Thread pearl cotton thread or light weight yarn into hole in presser foot. Heavy yarn or cord must be placed directly under the presser foot. Set zigzag stitch width so needle enters fabric on each side of the decorative thread. Zigzag stitch along marked pattern.

Rick-Rack



Standard foot
Needle position Center

Place rick-rack on fabric under center of presser foot.

To follow: Lower needle into a scallop. Turn hand wheel manually and adjust stitch width and length until needle enters opposite scallop. Zigzag stitch entire length of rick-rack.

To enclose: Lower needle into fabric between two scallops. Adjust as above until needle enters fabric between opposite scallops. Needle should not pierce rick-rack.

Decorative Overlay

Satin stitch foot
Needle position center

Mark position for decorative overlay on garment. Place overlay in position and zigzag stitch each side.
Adjust stitch width and length as needed.

Shell Stitch Edging

Needle Position **Left**

This decorative edge treatment may be done on most soft fabrics. Set machine for a plain zigzag stitch, and tighten both thread tensions. Sew along folded edge.

Double Needle

SATIN STITCH FOOT OR STANDARD FOOT

Setting the Double Needle

Needle position — Center

Raise the take-up lever to its highest point and loosen needle clamp screw. Hold double needle assembly with full length needle grooves toward you. Slip assembly all the way into needle clamp and tighten screw.

THREADING THE DOUBLE NEEDLE

Place a spool of thread on each spool pin. Draw the threads together and thread machine as you would for single needle sewing. Pass one thread on either side of the center tension disc of the upper tension mechanism. Draw one thread through each needle from front to back and pull several inches of thread through. Thread bobbin and pick up bobbin thread as for single needle sewing.

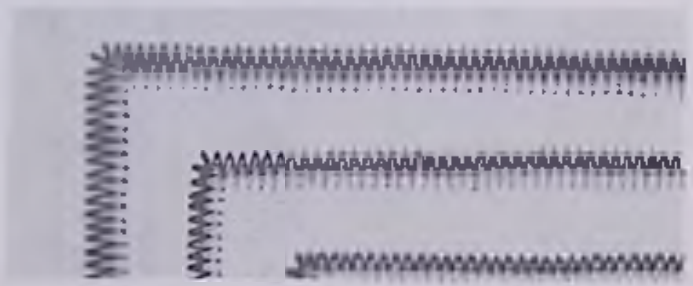
THREAD SELECTION

Use only mercerized machine embroidery thread or mercerized sewing thread size 50 and finer. Machine embroidery thread is recommended for both upper and lower threading.

Stitching

Set needle position on *center* and all other controls as for single needle stitching.

Most original decorative patterns and all automatic pattern stitches are possible with the double needle. Before starting any stitching operation, check needle drop by turning the hand wheel manually. With needle position control on *center,* needle should enter the fabric without touching the presser foot.



TURNING A CORNER

To turn a square corner in double needle stitching, stop stitching with the needle tips just piercing the fabric. Raise the presser foot, shift fabric half the turn, lower presser foot and take one stitch. Raise the presser foot again, complete the turn, and begin stitching in the new direction.

Automatic Decorative Stitching

INSERTING PATTERN DISCS

1. Set pattern disc selector on zigzag or curve stitch setting.
2. Pull Automatic Stitch Mechanism Plate open. Grasp knob of pattern disc and slip disc onto the shaft.
3. Set pattern selector at number 1 or 2, as desired.

When pattern selector is set on 1, the pattern indicated on side "1" of the disc in use will be repeated. To sew pattern on side "2" of the disc, turn selector to setting 2.

REMOVING PATTERN DISCS

To remove pattern disc, turn selector to zigzag or curve stitch setting and reverse insertion process.

SATIN STITCH

Satin stitch foot	
Stitch width	3 or 4
Stitch length	near 0

The above control settings will give wide stitches placed close together for a solid, satin appearance.

DECORATIVE THREAD WITH ZIGZAG STITCH

Standard foot	
Stitch width	2 to 4
Stitch length	1 to 2

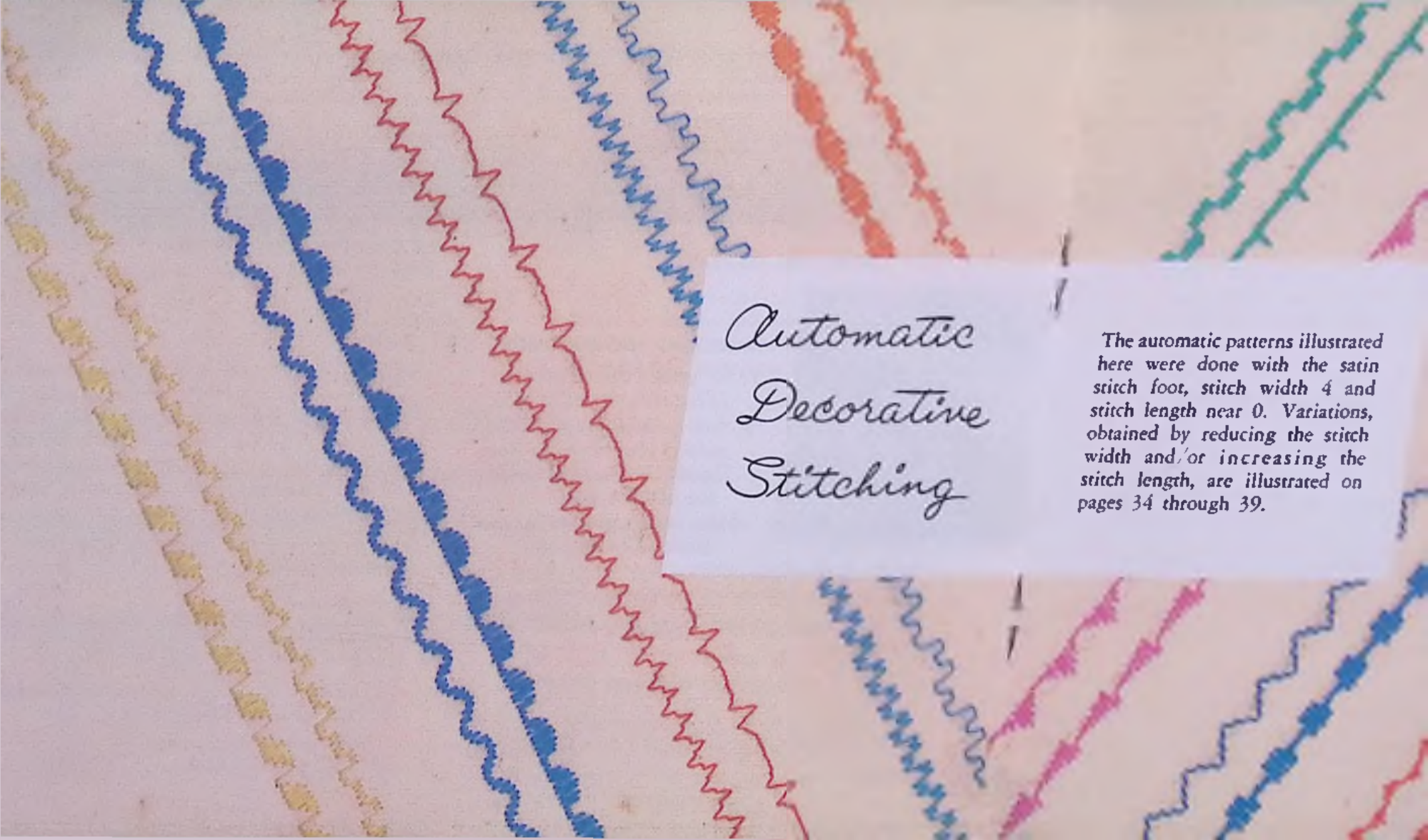
Wind bobbin carefully with decorative thread, such as pearl cotton or metallic threads. Loosen bobbin thread tension and tighten upper thread tension (p. 16). Set controls as indicated above and test stitch on fabric sample. Adjust tensions until satisfactory stitch is obtained. Place fabric under presser foot with wrong side up.

CURVE STITCH

Standard foot	
Stitch width	3 to 4
Stitch length	½ to 1½
Pattern selector	Curve

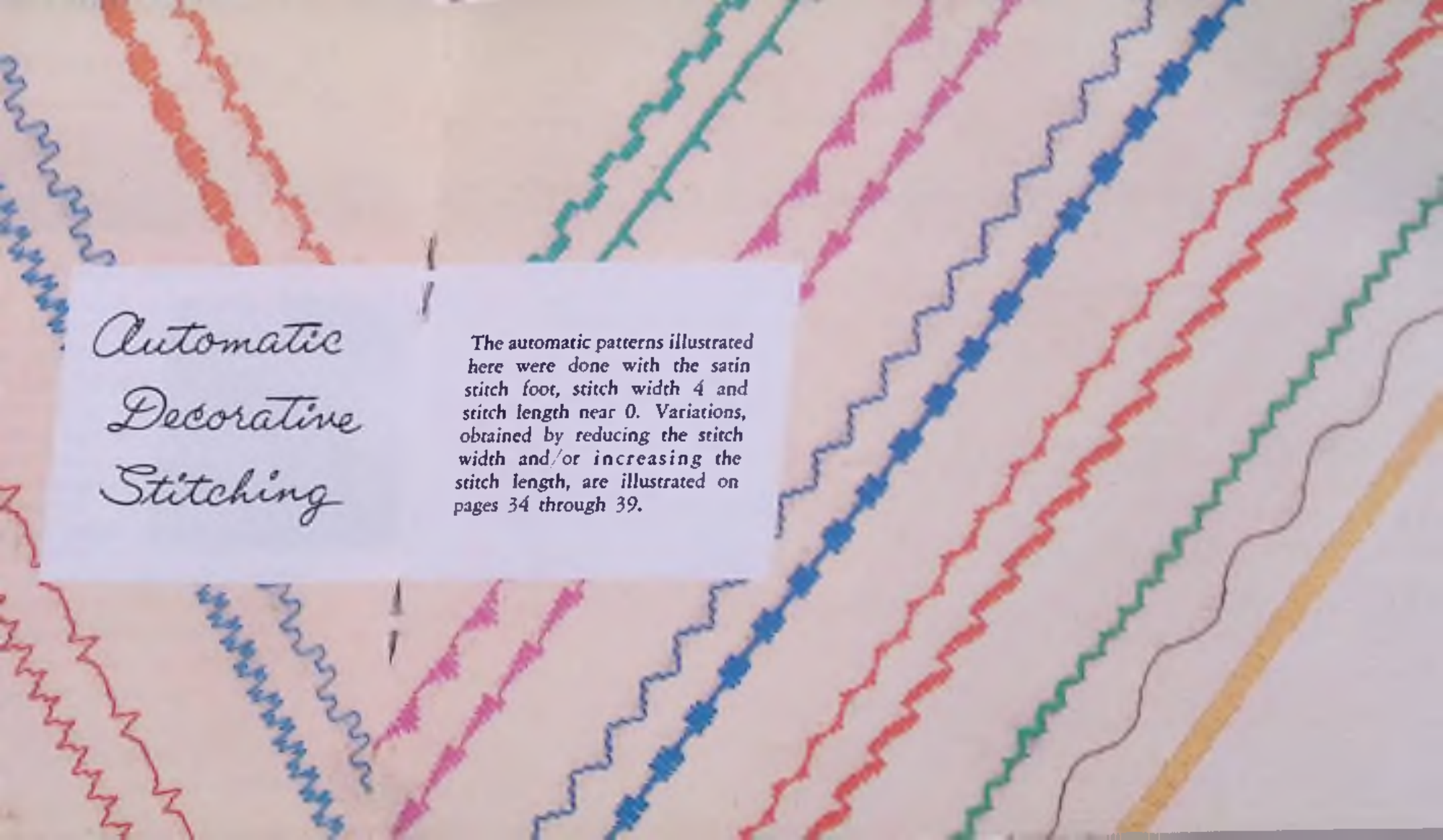
The curve stitch is another decorative pattern built into your KENMORE.

See illustrations on page 33.



Automatic Decorative Stitching

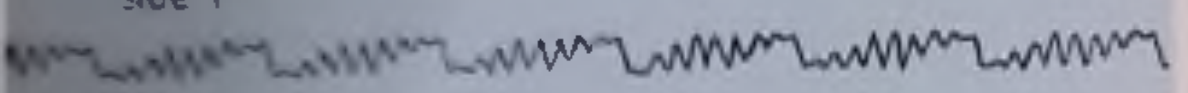
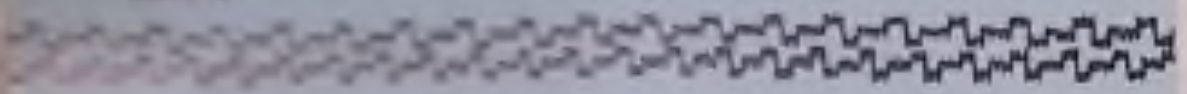
The automatic patterns illustrated here were done with the satin stitch foot, stitch width 4 and stitch length near 0. Variations, obtained by reducing the stitch width and/or increasing the stitch length, are illustrated on pages 34 through 39.



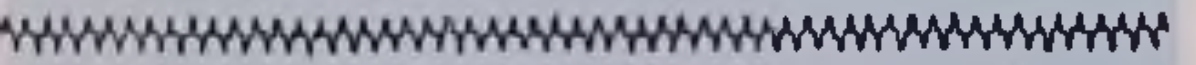
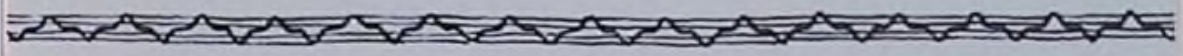
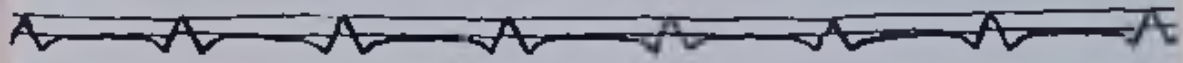
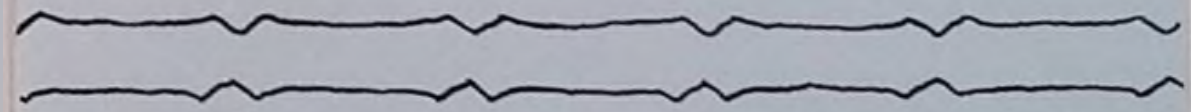
Automatic Decorative Stitching

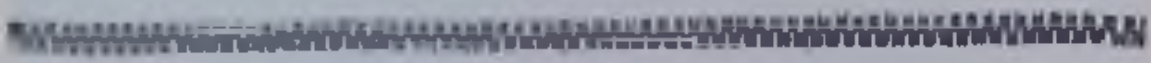
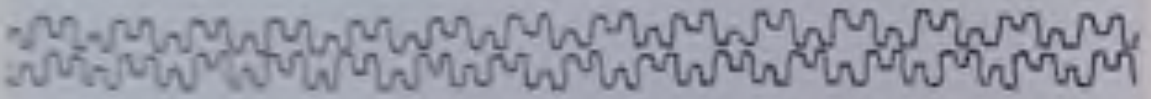
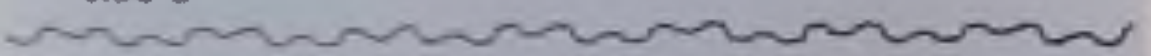
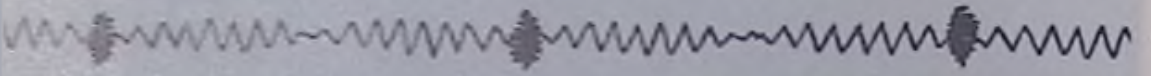
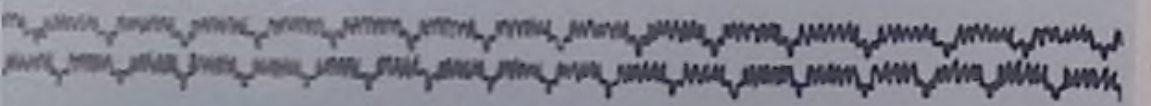
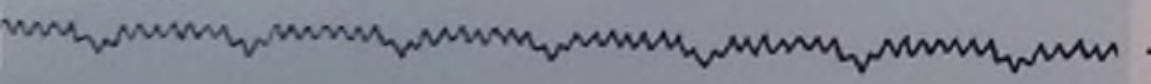
The automatic patterns illustrated here were done with the satin stitch foot, stitch width 4 and stitch length near 0. Variations, obtained by reducing the stitch width and/or increasing the stitch length, are illustrated on pages 34 through 39.

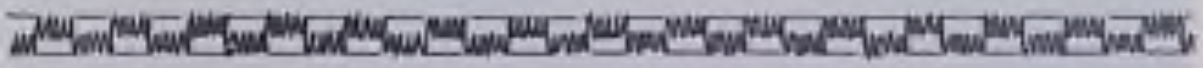
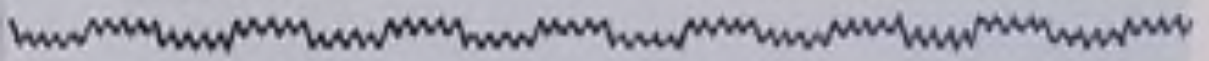
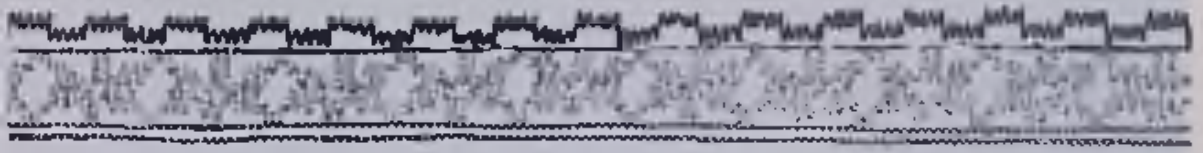
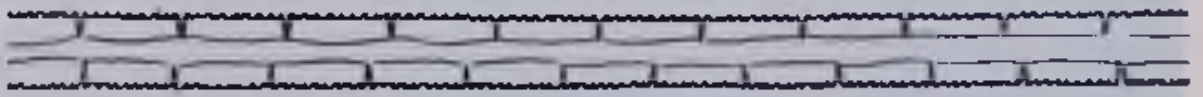
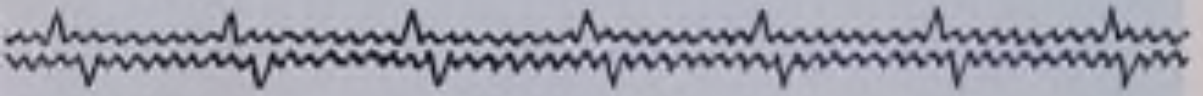
Automatic Decorative

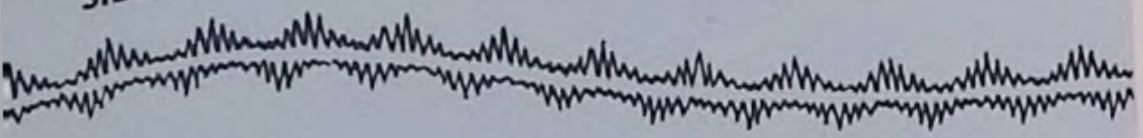
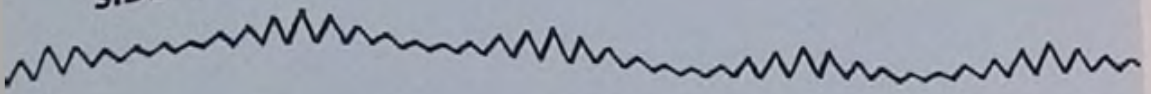
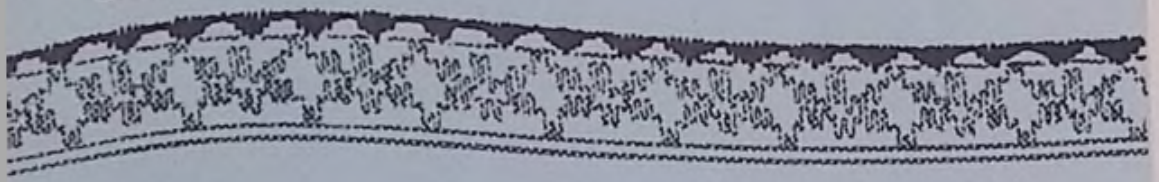
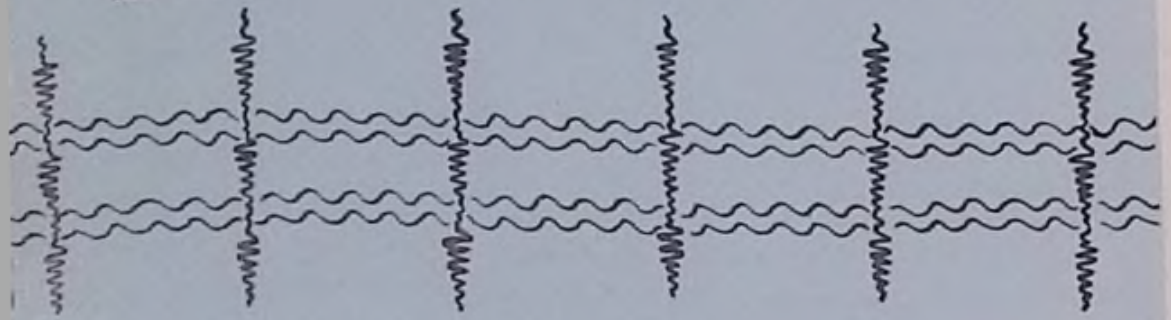
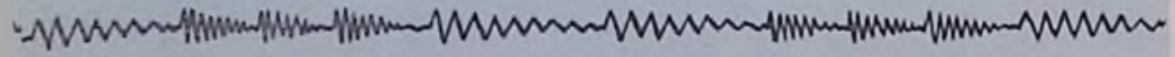
DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	...4.....	...1	
SIDE 1	...2.....	¼.....	.LACE
	...4.....	.0	
	...4.....	¾.....	.YARN
	...2.....	¼	
	...4.....	...1	

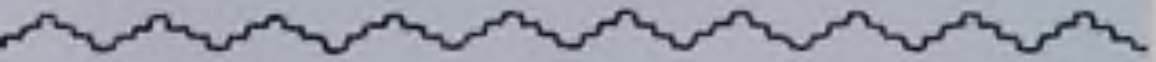
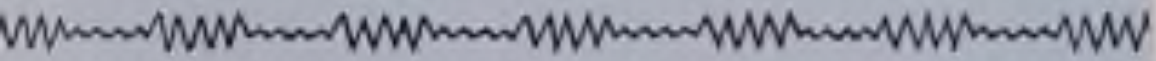
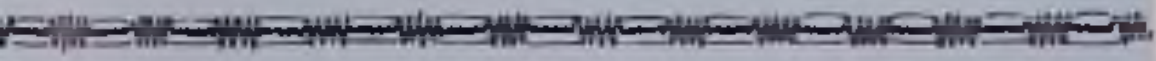
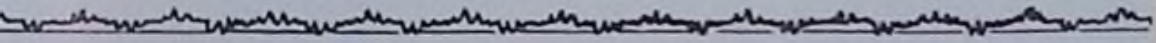
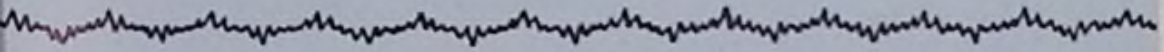
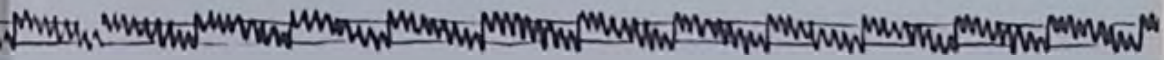
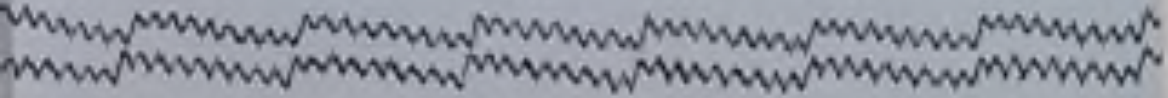
Stitch Variations

DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	4	0	
SIDE 1	3	3	
SIDE 1 	3	1½	PEARL COTTON
SIDE 2 	4	1	YARN
SIDE 2	4	3	
SIDE 2 	2	1½	

DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	4	0	
SIDE 1	3	½	
SIDE 2 	4	½	
SIDE 2 	2	1	
SIDE 1 	4 4	1¼ 0	
SIDE 1	4 2	½ ½	
SIDE 2 	4	1¼	
SIDE 2 	3	1	

DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	4	¼	PEARL COTTON
SIDE 1 	3	¾	
SIDE 1 	3	½	LACE
SIDE 2 	3	½	YARN
SIDE 2 	4	1	
SIDE 2	3	¾	LACE

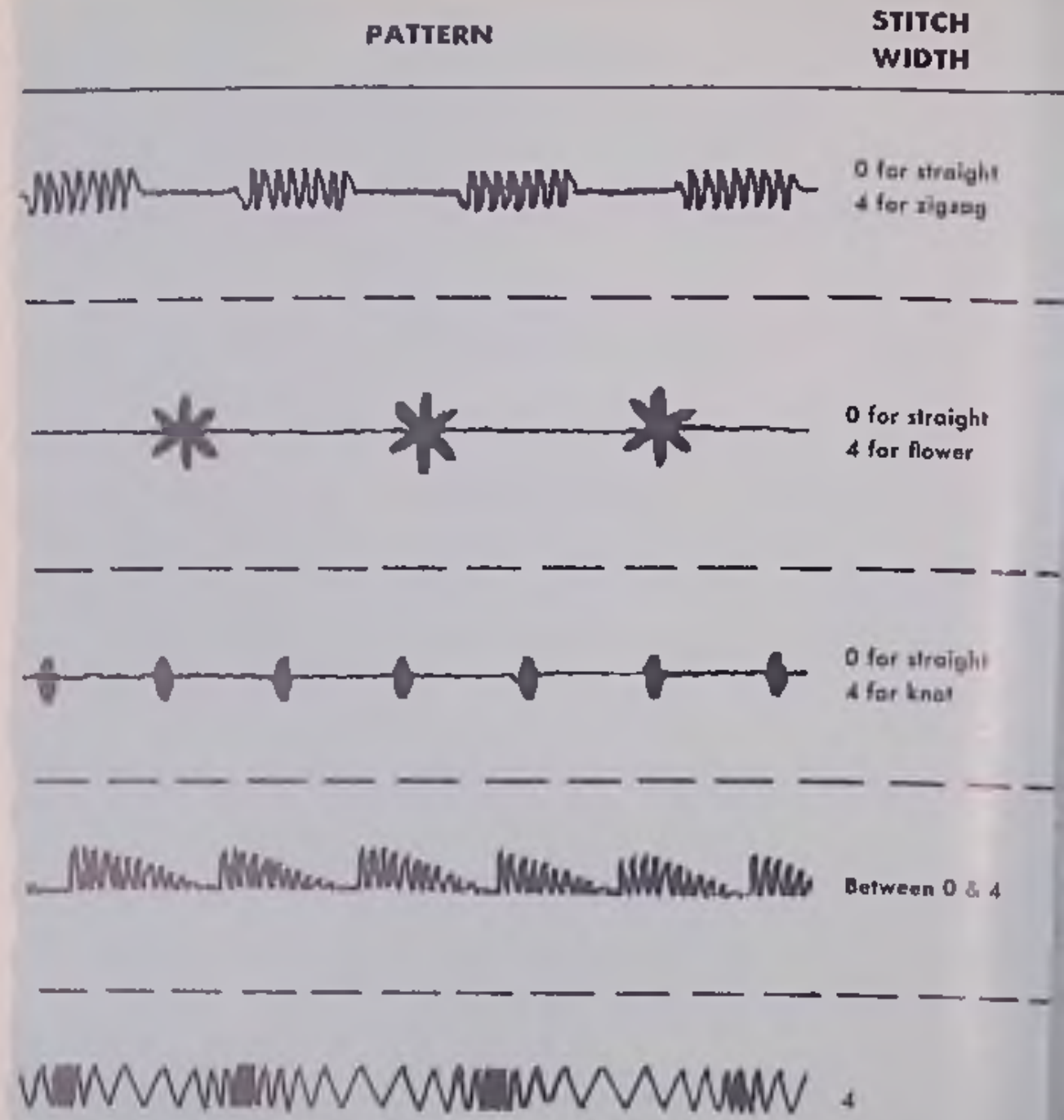
DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	4 3	½ ½	
SIDE 1 	4	1½	
SIDE 1 	3	¼	LACE
SIDE 2 	3	¼	RICK RACK
SIDE 2 	4 4	1 ½	

DESIGN	STITCH WIDTH	STITCH LENGTH	APPLIED MATERIAL
SIDE 1 	4	½	
SIDE 2 	4	1	
SIDE 2 	3	¼	YARN
SIDE 1 	3	½	PEARL COTTON
SIDE 1 	4	½	
SIDE 2 	4	½	YARN
SIDE 2 	4	1	

Original Decorative Stitching

Satin Stitch foot
Pattern selector zigzag position

Many original decorative stitches are possible with slight variation in stitch width, stitch length, needle position, and feed dog position. A few patterns are illustrated and explained here. There are many more possibilities which you will discover as you use your machine.



STITCH LENGTH	NEEDLE POSITION	FEED DOG POSITION	PROCEDURE
Near 0	Center	Position 1	Alternate straight stitching with zigzag stitching by moving stitch width control quickly back and forth between 0 and 4. Repeat rhythmically.
1½	Right or Left	Position 1 Position 2	Straight stitch desired distance. For flower, drop feed, change stitch width, and take 2 zigzag stitches in position. Pivot fabric for each petal. When flower is completed turn to straight stitch position. Reset controls and repeat.
1½	Center	Position 1 Position 3	Follow straight stitching with a knot. Drop feed, change stitch width, and take 3 or 4 zigzag stitches. Repeat.
Near 0	Right or Left	Position 1	Start with stitch width 4. Decrease stitch width to 0, flip control quickly back to 4, and repeat rhythmically.
Between near 0 and 2	Center	Position 1	Set stitch length lock at 2. Move stitch length control rhythmically back and forth between near 0 and 2.

Mending

DARNING

Stitch width	0
Needle position	Center
Feed dog position	2

Remove presser foot. Stretch fabric between embroidery hoops and place under needle. Draw the bobbin thread up through fabric by holding the upper thread and taking one stitch at the spot where you wish to begin darning. Lower Presser bar. Start sewing at a medium machine speed. Move the fabric back and forth with a steady rhythm to cover the darning area. Then turn the fabric and sew another layer of stitching at right angles to the first. Move the fabric fast for long stitches, slowly for short stitches.

If you wish to darn without using embroidery hoops, leave the presser foot attached, move feed dog control to 2, and loosen foot pressure knob to last thread on screw. Then proceed as above, stretching fabric tightly between hands.

OVERCASTING WORN EDGES

Standard foot	
Stitch width	3 or 4
Stitch length	½
Needle position	Center

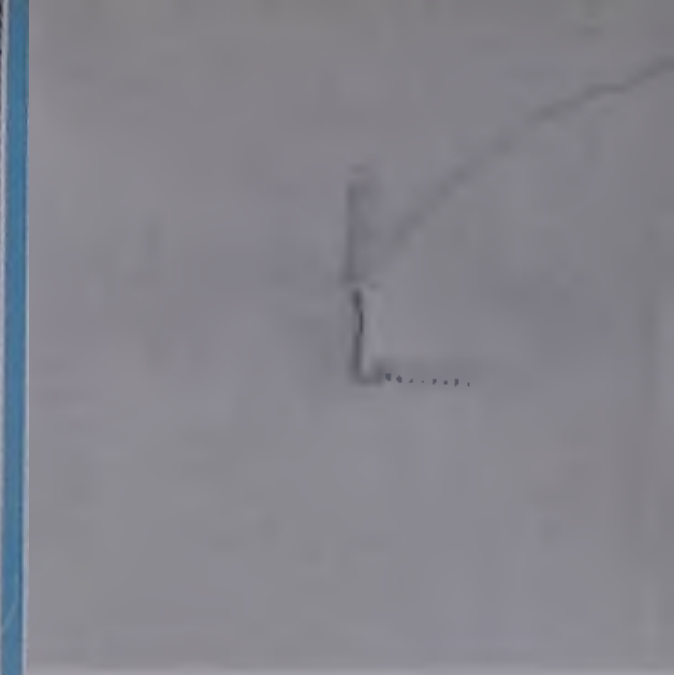
Zigzag stitch along the worn edge, catching the fabric as the needle swings to the left, and allowing the needle to just pass over the edge of the fabric on the right.

PATCHING

Machine baste patch into place under hole or worn area.

Standard foot	
Stitch width	3
Stitch length	½
Needle position	Center

Zigzag stitch the patch into place around edge of hole or worn area. Trim raw edges close to zigzag stitching.



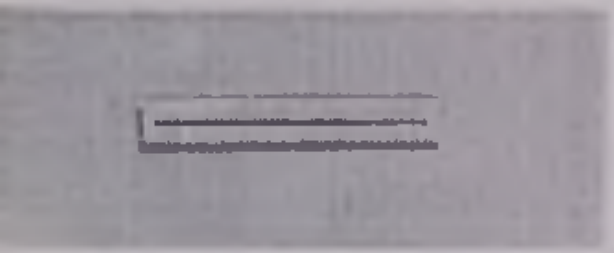
STRAIGHT OR THREE-CORNERED TEAR

Standard foot	
Stitch width	3 or 4
Stitch length	¼ to ½
Needle position	Center

Zigzag stitch along a straight tear, catching fabric on left side of tear on left swing of needle, and fabric on right side of tear on right swing of needle.

In mending a three-cornered tear, zigzag stitch from each end to the center.

Buttons AND Buttonholes



PLAIN BUTTONHOLES

Buttonhole foot	
Stitch width lock	Buttonhole
Stitch length	Near 0
Needle position	Left

Adjust sliding guide on presser foot to length of buttonhole. Tighten thumb screw to hold guide in position.

1 Move stitch width indicator to stop at 2. Zigzag stitch first side of buttonhole. When stitching reaches the guide, stop the machine with needle in fabric on right side of the line of stitching.

2 Turn fabric to right until first line of stitching fits into right groove on bottom of foot.

3 Turn the handwheel and take one stitch to the left. Move stitch width indicator to 4, feed dog control to 2, and take a few stitches to bartack end of buttonhole. Stop with needle in fabric on the left.

4 Move stitch width indicator back to stop at 2, feed dog control to 1, and stitch to end of buttonhole. Stop machine with needle in fabric on the left.

5 Move the stitch width indicator to 4, feed dog control to 2, and take a few stitches to bartack end of buttonhole. Stop with needle on the left. Then move stitch width indicator to 0 and take a few stitches to tie ends of threads.

CORDED BUTTONHOLES

Pull a length of heavy thread or light weight cord through the small hole in the buttonhole foot. Follow directions for plain buttonholes. When sewing the buttonhole, let the filler thread slide through your hand.

BUTTONS

Button foot	
Needle position	Left
Feed dog position	2

1 Place needle into left hole of button, and lower presser foot.

2 Set stitch width indicator at width between holes of button. Test width by turning handwheel slowly. Take several zigzag stitches to sew on button, ending with needle on left side.

3 Set stitch width indicator at 0. Take a few stitches in left hole of button to lock threads. Pull threads to wrong side.

NOTE: To make a small thread shank when sewing on a flat button, place a straight pin or needle between the holes of the button.

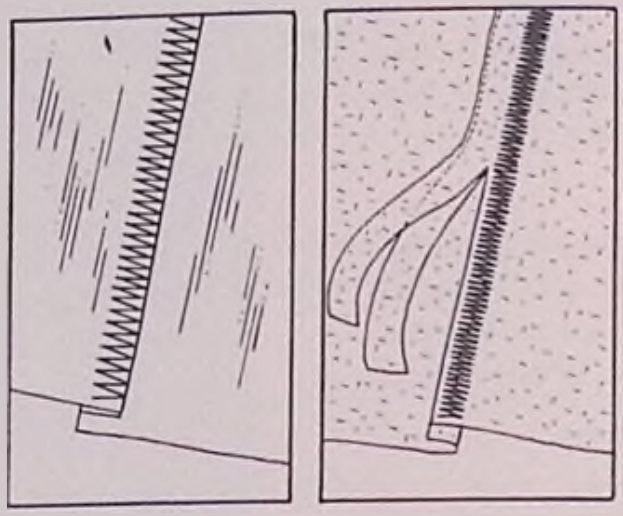
Special Purpose Seams

LINGERIE SEAM

Machine baste seam and press both seam allowances to one side.

Standard foot	
Stitch width	2 to 3
Stitch length	¾
Needle position	Left

Turn the garment to the right side and zigzag stitch along the seam, allowing one side of the stitching to fall on the seam, the other on the seam thickness. Remove basting stitch.



CORDING SEAM FOR SHEERS AND TRICOT

Satin stitch foot	
Stitch width	2 to 3
Stitch length	Near 0
Needle position	Center

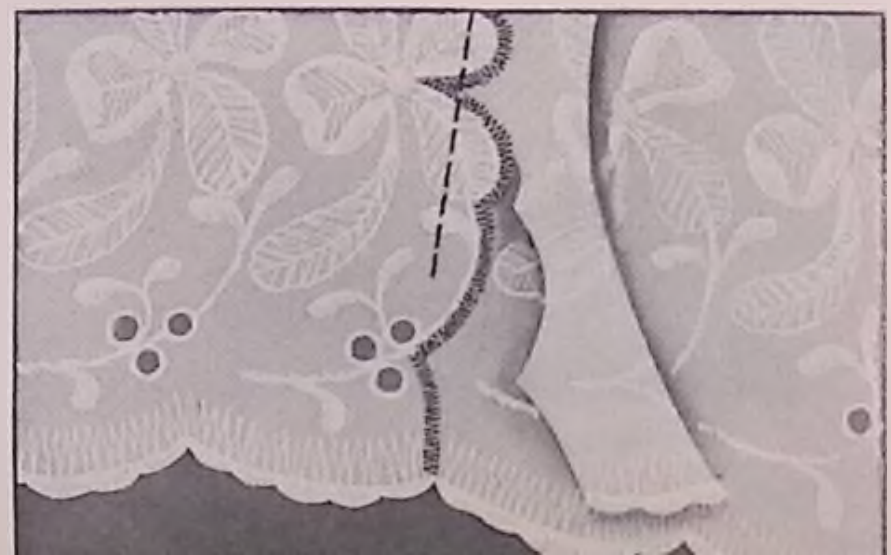
Zigzag stitch entire seam. Trim seam allowance close to stitching.

INVISIBLE SEAM FOR LACES AND EMBROIDERED FABRICS

Baste one piece of lace over the other, matching design.

Satin stitch foot	
Stitch width	2
Stitch length	¾
Needle position	Left

Zigzag stitch, following outline of the design. Trim both seam allowances close to stitching.

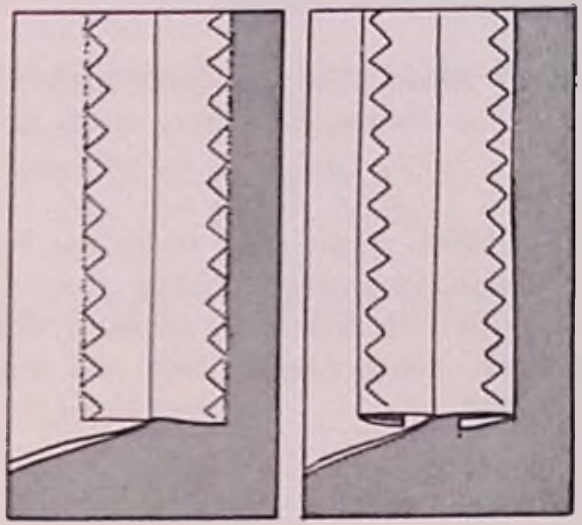


Seam Finishes

OVERCAST

Standard foot	
Stitch width	2 to 3
Stitch length	1 to 2
Needle position	Center

Zigzag stitch along raw edge of each seam allowance to eliminate raveling.



TURNED AND STITCHED

Set machine as for overcast seam finish.

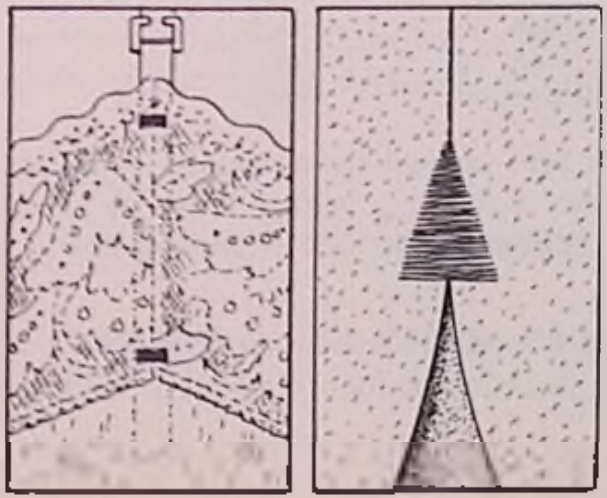
Fold raw edge of seam allowance toward garment. Zigzag stitch along fold, allowing needle to pierce exact edge of fold.

REINFORCEMENTS

BARTACK POINTS OF STRAIN

Satin stitch foot	
Stitch width	2 to 3
Stitch length	Near 0
Needle position	Center

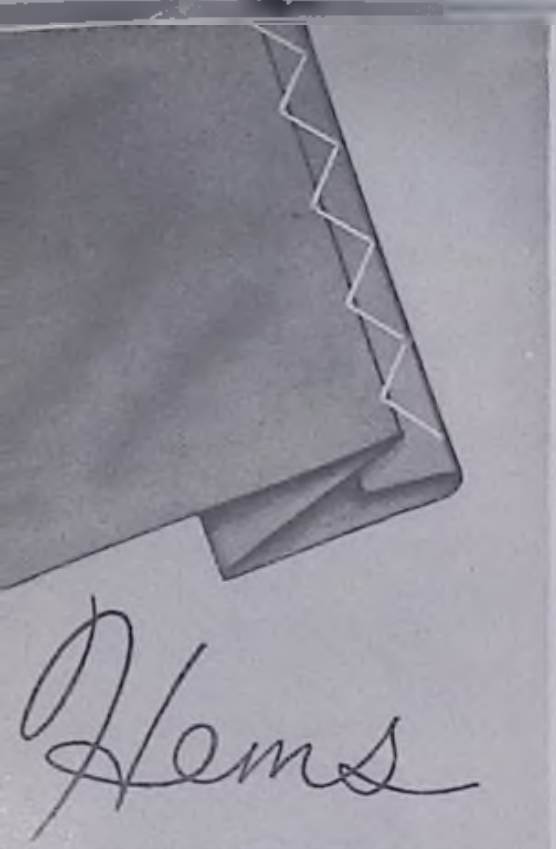
Zigzag stitch bartack to length desired.

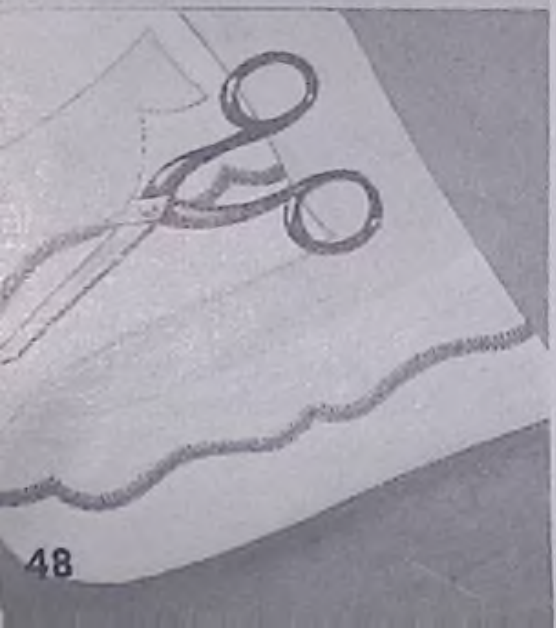


ORNAMENTAL TACK FOR POINTS OF STRAIN

Satin stitch foot	
Stitch length	Near 0
Needle position	Center

Start at widest point of arrowhead tack. Move the stitch width regulator slowly from 4 to 0.



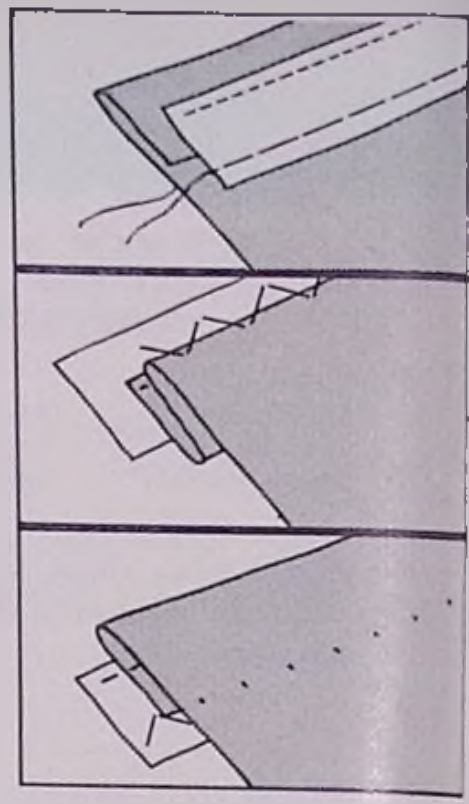


BLIND STITCHED HEM

Standard foot	
Stitch width	2
Stitch length	F
Needle position	Center

STRAIGHT HEM: Fold and press hem. Turn pressed hem back as illustrated. Zigzag stitch along garment fold.

CURVED HEM: Apply seam tape along raw edge with either straight or zigzag stitching. Press hem in place and baste ⅛ inch from edge of seam tape. Fold garment back along basting line and stitch same as straight hem.



SATIN STITCH HEM FOR SHEERS OR TRICOT

Satin stitch foot	
Stitch width	2 to 3
Stitch length	Near 0
Needle position	Center

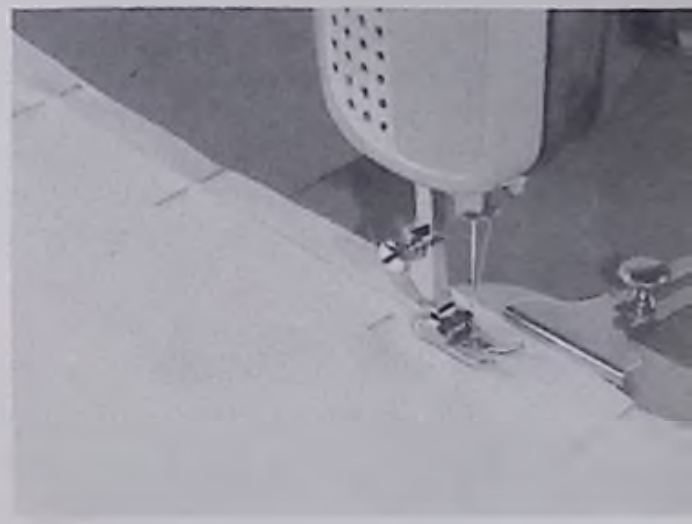
Press hem up and baste straight or design stitching line below raw edge of hem. Following basting line with zigzag stitching on right side. Trim raw edge on under side close to stitching.

CORDED HEM: Attach Applique Foot and thread cord through small hole in center of foot. Proceed as for Satin Stitch Hem.

Tips with Attachments

Follow these hints for a good start with your attachments:

1. The take-up lever must always be at its highest point when you start to sew, and before you remove fabric or an attachment.
2. Use a screwdriver to tighten or loosen the presser foot or attachment.
3. Stitch slowly when using any attachment.
4. Practice using the attachment on a scrap of the same fabric you will use for your garment.
5. If your attachment has an enclosed needle hole, you must put the upper thread through this hole before you start to stitch. To do this, lay any piece of material under needle hole of the attachment. Do not lower presser bar lever. Turn handwheel by hand to take one complete stitch, then pull fabric back of presser foot and away from thread.
6. Be sure needle is tight in the needle clamp.
7. If elastic thread or embroidery floss is used, it must be wound on bobbin by hand.
8. Edges of your fabric should be cut with straight shears rather than with pinking shears.



SEAM GUIDE

This attachment will help you stitch hems, seams and wide tucks at an even distance from the edge. Attach seam guide to machine by placing slot over screw holes in the base of the machine. Adjust guide to the distance you want and fasten firmly using thumb screw.

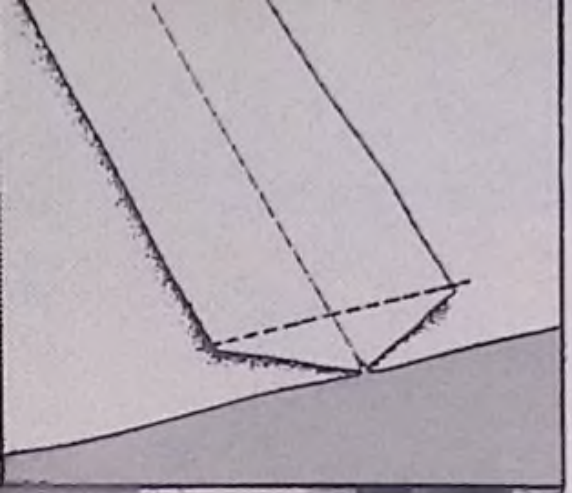
The narrow hemmer makes a neat, tiny hem easily and quickly. It provides an excellent finish for the edges of ruffles and other dainty work. You may use either a straight or zigzag stitch (stitch width 2) with this attachment.

Remove presser foot and attach a narrow hemmer. Using a straight edge of fabric, insert the material into the hemmer with the right side of fabric down. To do this, hold the cloth between the first and second fingers of the left hand and place the corner of the fabric between the rolled upper section and the curved prong. Raise the material slightly and roll the edge a little to the left so that the fabric enters the scroll at a slight angle. Gently push the cloth away from you. Continue pushing until the material appears just beyond the needle hole so that the feed can carry the cloth backward.

Narrow Hemmers

When the material is in proper position, lower the needle and the presser bar lever. Take a few stitches and stop to see if they are catching the hem. If they aren't, push hemmer slightly to the right. If stitches are too far from edge, push hemmer slightly to the left. Stitch slowly, retarding the progress of the fabric slightly. Be sure to do this with a light touch so that the material will not be stretched. Although the fabric may be guided by simply putting the finger tips of the left hand lightly on the material, many people find it easier to hold the cloth so that it extends upward between the first and second fingers for about 5/8 inch when the fingers are placed about 1 inch in front of the hemmer. The other fingers rest lightly on the fabric to retard it slightly. The material slips through the fingers allowing the correct amount of cloth to enter.

If the hem must begin exactly at the edge of the fabric, fold a 1/8 inch hem in the cloth for about 2 inches. Catch these folds together by passing a needle and thread through the end. Hold the ends of the thread with the right hand, and insert the fold in the hemmer. Pull the threads straight back, bringing the fabric through the hemmer until the edge of the hem is exactly under the needle. Continue to hold the threads as you begin to stitch, pulling them gently to carry the material away from you until the first few stitches have been taken.



HEMMING ACROSS A SEAM

To hem across a seam, cut a small triangle from the seam allowance beginning at the end of the seam and extending ⅛ inch from the edge to be hemmed. Press the seam open. Stitch across the seam at the extreme edge to hold it together and add extra firmness.

HEMMING AND SEWING ON LACE

Put the material in the hemmer as you did when making the narrow hem. Place the edge of the lace to be stitched to the cloth into the open slot which is under the needle. With the right side of the lace down, raise the lace slightly with the right hand as you stitch. Rick-rack may be used in the same way.

FRENCH STYLE HEMMING AND SEWING ON LACE

This method allows the lace to be attached to the material without any stitches showing after the hem has been pressed back. The hemmer is used in the usual manner. However, the lace is placed in the hemmer from the left with the right sides of the lace and fabric together. When the stitching is completed, the hem is pressed to the wrong side.

When this method for applying lace is used it is possible to have a small amount of fullness in the lace. This may be done by pulling the strong thread in the straight edge of the lace.

Wide Hemmers

Hemmers eliminate the chore of measuring, creasing, pinning and basting. Hems of 3/8 inch and 5/8 inch are possible with the two wide hemmers. Attach the hemmer to the machine in place of the presser foot. Insert the material. Use both hands and draw the fabric back and forth a few times so that the scroll is filled completely. Draw the material into position so that the stitching will start near the edge of the fabric.

If the material does not curl under the scroll easily, fold the raw edge of the cloth over 1/8 inch for about 2 inches. To keep the correct amount of fabric flowing into the scroll, guide the material by placing the left hand lightly on the cloth, retarding its progress slightly.

EDGESTITCHER WITH GUIDE

For hems wider than 1/4 inch use edgestitcher and guide. Press hem in fabric. Remove presser foot and attach edgestitcher. Loosen set screw at the back of the edgestitcher, set guide for desired hem width and tighten set screw with small screw driver. Stitch with a medium speed, keeping the right edge of the material under the guide.

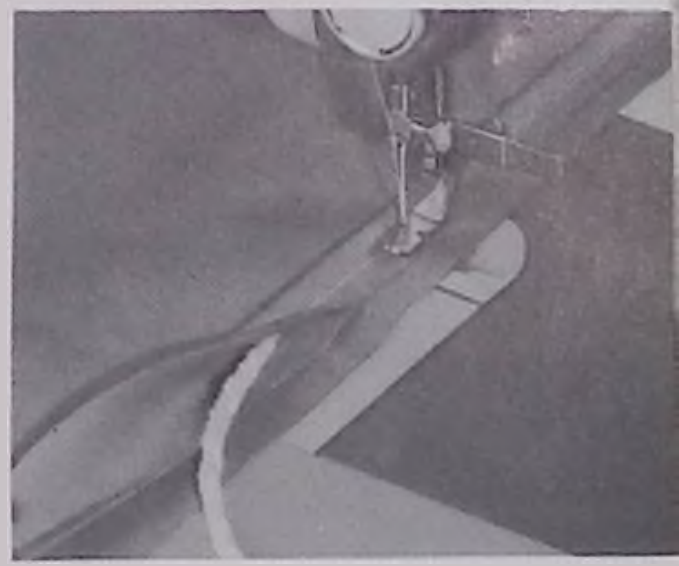
Adjustable Zipper and Cording Foot

ZIPPER INSERTION

To put in a slide fastener, remove the presser foot and put the adjustable zipper foot in its place. On the back of the horizontal bar there is a screw which may be loosened so that the zipper foot may be moved, making it possible for the needle to enter the slot on the left or right.

To sew along the left side of the zipper, the foot should be to the left of the needle, and to sew along the right side, the foot should be at the right of the needle. With the attachment adjusted properly, the slide fastener may be sewed to the garment according to directions accompanying it.

CORDING



To sew cording, attach adjustable zipper foot to the machine. Adjust the position of the foot by loosening screw on bar. It is possible to change its position so that it will stitch not only to the right or left of the cord, but also so that it will stitch close to or a little away from the cord. If you wish to stitch close to the cord, the needle should enter the opening near the outside edge, but if you want to stitch away from the cord, the needle should fall well into the circle of the hole on the foot. Usually you sew away from the cord when you are making the cording or welting that is to be sewed to another article, so that the first line of stitching will be covered when the cording is enclosed.

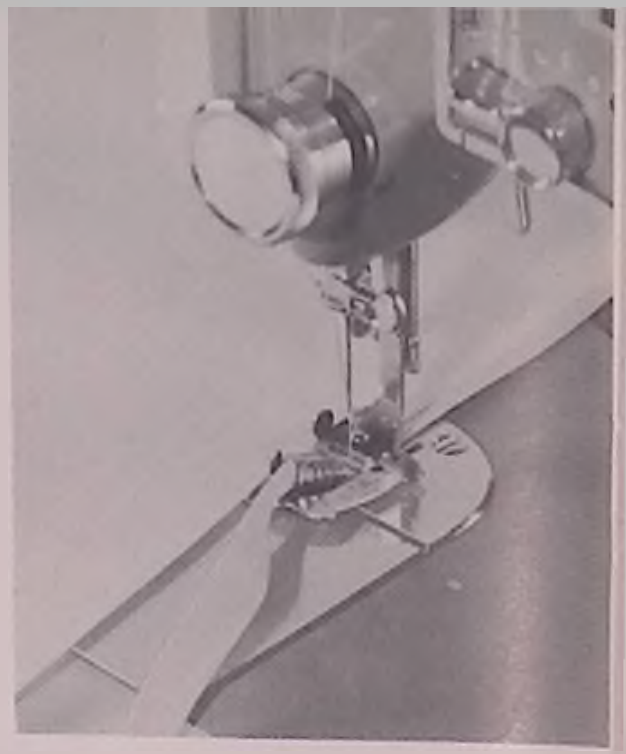
Strips of true bias are needed for cording. The width of the strips depends on the size of the cord to be covered. Stretch the bias well before placing the cord on the wrong side of the bias. Fold the bias over the cord and stitch.

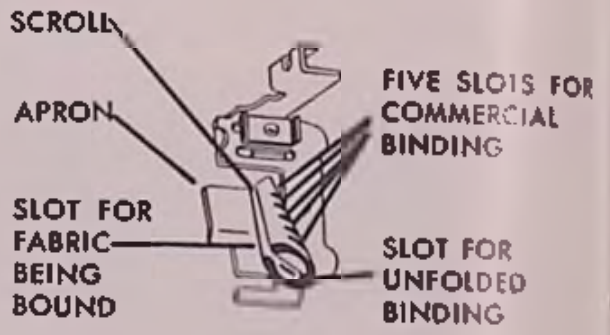
Binding

With the binder, bindings can be applied without pinning and basting. In one operation, both sides of the binding are stitched evenly and neatly in place. Remove the presser foot and attach the binder to the presser bar. Notice that the slots in the scroll of the binder are used to hold various sizes of commercial single folded binding. The apron, a flat square area on the left, is used as a finger rest so that the work may be guided close to the needle.

With the binder in place, cut the end of the binding to a point and insert the binding in the correct slot. Use a strong pin or small screwdriver to push the binding toward the needle. When it emerges from the scroll, draw it under the needle. Lower the presser bar and sew for a few stitches to see if the stitches are the correct distance from edge. Adjustment can be made by moving the binder slightly to the right or to the left.

When the position of the stitches is correct, place the cloth to be bound over the apron, into the scroll, and back under the needle. Always keep the material being bound well into the binder at the point close to the needle. You can maintain this position by placing the second finger of the left hand on the material near the needle, allowing it to rest on the apron. It isn't necessary to hold the binding.





STITCHING UNFOLDED BINDING

If you wish to make binding, cut true bias $\frac{7}{8}$ inch wide if it does not stretch, and 1-1¼ inch wide if it does stretch.

Fold the first three inches of bias binding in half. Insert the folded edge into the center slot which divides the scroll in half. Spread binding at the opening of the binder with the right hand. At the same time, pull binding under the needle with the left hand. Binding will then spread over both halves of the scroll.

When the binding is in proper position, begin to stitch using the same technique that you did for commercial binding.

BINDING AND PIPING

The binder can bind and pipe a garment at the same time. Use two sizes of light weight, good quality commercial folded binding. The smaller size does the binding; the larger size, the piping. Be sure to skip a size between the two bindings.

First thread the narrower binding into the proper slot, then the wider binding can be inserted in a larger slot. Draw both bindings ½ inch beyond needle hole. Put your fabric into binder and start to stitch the usual way.

APPLYING FRENCH FOLDS TO CURVES

Place fabric under binder and stitch binding on the right side of the fabric. You can use either the inner or outer edge of binder as a space guide between rows of binding.

Quilting

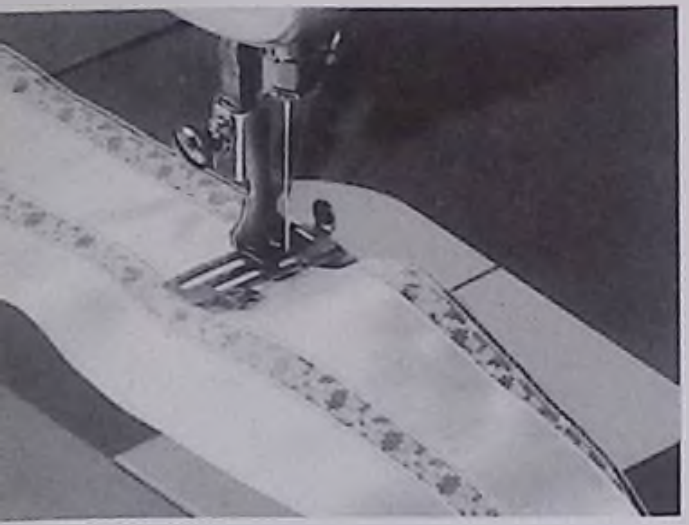
Attach standard presser foot. Slip guide holder onto the presser bar from the back and slide guide through holes from right to left. Set guide for distance desired between rows of stitching and tighten screw.

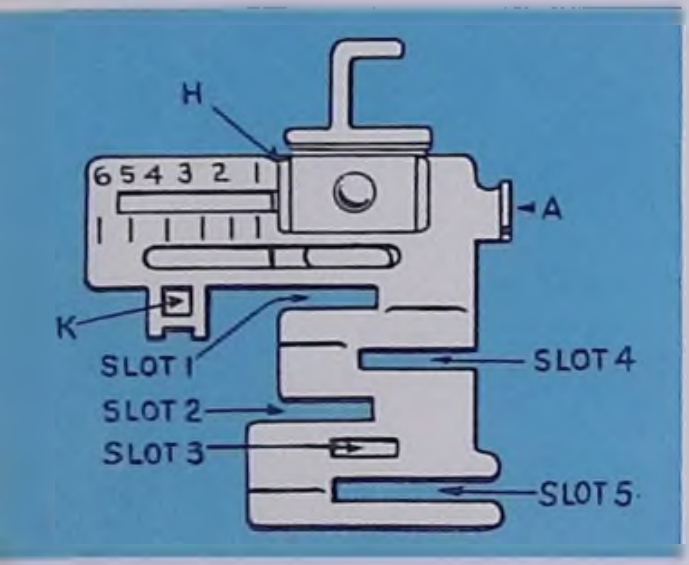
Stitch through several thicknesses of material to give quilting a puffy appearance. Use a layer of wadding on the wrong side of the fabric, covering it with cheesecloth to hold it in place.

Using a long stitch, work with the wrong or lining side up. For straight rows of stitching, use the edge of fabric as a guide for the first row. The row of stitching just made becomes a guide for the next row.

For diagonal stitching, baste in the first row on the bias.

Edgestitching





The slots on the edgestitcher serve as guides in sewing together different pieces of material. You can stitch together two finished edges, such as two pieces of lace, or attach lace to a finished edge by putting the material you wish to be on top in slot 1 and the under fabric in slot 4. Pull the material and lace back under the edgestitcher so that the feed can carry it backward when you begin to stitch. Hold the fabric which is in slot 1 in the left hand and the lace which is in slot 4 in the right hand. Cross the left hand slightly over the right hand so that the material will overlap the lace. Lug A may be moved so that the two edges will be stitched together.

Use slots 2 and 5 for a larger overlap.

The enclosed slot 3 is used to sew on rick-rack or piping. Put it into the slot from the top and pull it ½ inch beyond the needle before beginning to stitch.

PIPING WITH EDGESTITCHER

If you want to use narrow piping, put folded piping into closed slot 3. The fold of piping should go to the right. Put edge of folded fabric into slot 2 and stitch.

If you want wide piping, use enclosed slot 3. Then put fold of piping to the left and folded edge of fabric into slot 4 and stitch.

TUCKING

You can make evenly stitched tucks in any length and any number of rows. First set tucking guide to desired width by moving lug A to number as shown below. Mark fabric for each tuck. Press on marked line and place fold in slot 1. Guide evenly permitting fabric to move along inside of slot.

When left edge of friction spring H lines up with Number 2 on the scale, you will get a ¼ inch tuck.

SET IT ON . . .

3 for a ⅜ inch tuck
4 for a ½ inch tuck
5 for a ⅝ inch tuck
6 for a ¾ inch tuck
For pin tucks set guide so needle enters edge of fold.

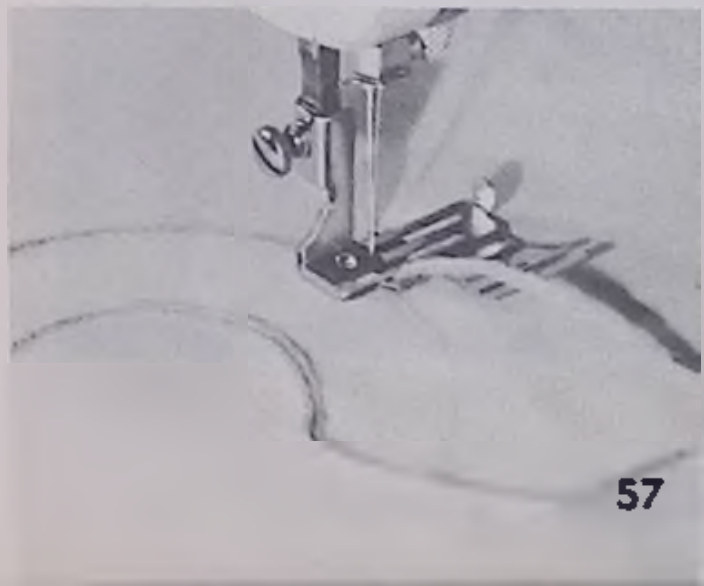
TOP BRAIDING

Be sure the design you want to braid is marked clearly on top or right side of fabric.

Move lug A until braiding guide hole K is exactly in line with needle hole of attachment.

Insert soutache braid (yarn or rick rack) into hole K from the top. Pull about one inch of it beyond needle. Then stitch along the design. Be sure braid is feeding freely into hole "K" without twisting.

To turn a corner or follow a curve stop the machine with Needle in Braid. Raise presser foot lever just enough to permit turning the fabric, lower presser foot and continue as before.



Gathering

With this attachment you can gather or shirr on a single thickness of fabric, or gather and attach a flouce to a piece of flat material in one operation. You may use either a straight or zigzag stitch.

Remove the presser foot and attach the gathering foot. Bring thread through enclosed needle hole before beginning to stitch.

The longer the stitch you set, the fuller you'll make the gathers. For still greater fullness tighten upper thread tension. Place the fabric under the foot as you would for ordinary stitching. Guide fabric carefully so you always stitch through just one thickness.

If you are putting in multiple rows of gathering, attach the quilting guide above the gathering foot so that the space between the rows will be even.

GATHERING AND ATTACHING A FLOUNCE

To gather and attach a flouce in one operation, first hem the edges of the ruffle.

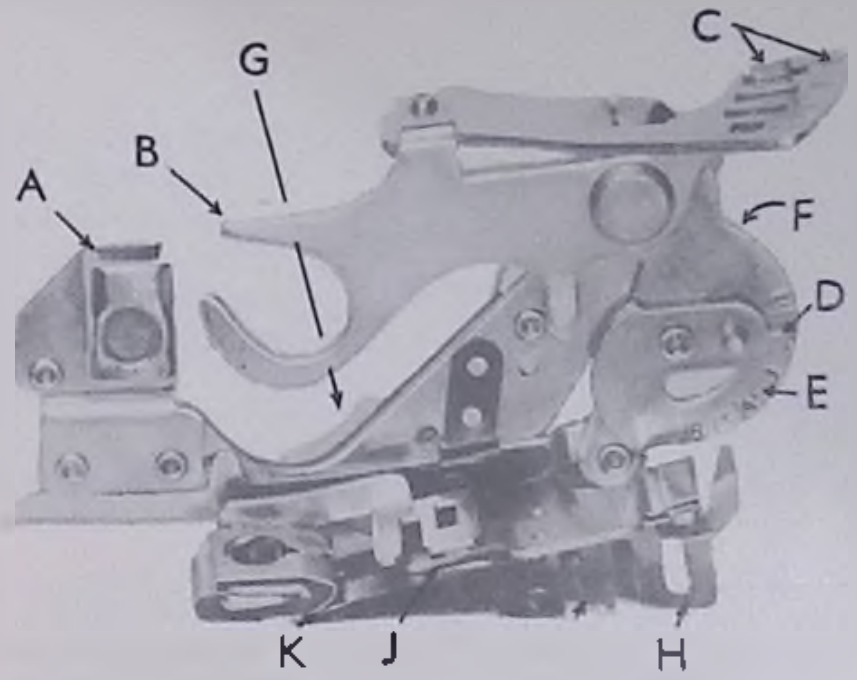
If the flounce is to have a heading on the outer side of the article, as illustrated, place the fabric to be gathered right side down under the foot. Place the fabric to which it will be attached right side up in the slot on the left side of the foot.

If the heading on the flounce is to be turned to the wrong side of the article, place the fabric to be gathered right side up under the foot. Place the article to which it is being sewn right side down in the slot on the left side of the foot.

Ruffler

The illustration and list below will help you understand how to use the Ruffler.

Index Letter	Name	Function
A	Foot	Fastens ruffler to presser bar.
B	Fork Arm	Placed on needle clamp so that needle movement will cause a gathering action.
C	Setting Lever	Used to set ruffler to gather, to pleat, or to sew straight.
D	Adjusting Finger	Adjusts for varying fullness of gather or depth of pleat.
F	Adjusting Finger Locking Screw	When tightened, it holds the adjusting finger securely at its setting.
G	Heading Guide	Controls width of heading and can be adjusted for different widths.
H	Seam Guides	Used to line up a piece of straight fabric and the piece being ruffled.
J	Ruffling Blade	This blue-steel toothed blade pushes the fabric forward to form gathers or pleats.



Index Letter	Name	Function
K	Separator	This blade prevents the teeth of the ruffling blade from coming in contact with feed dog. It also separates the fabric being ruffled from the bottom fabric.
L	Lip	The part of seam guide under which the fabric passes.

ATTACHING RUFFLER TO MACHINE

Lower needle bar of machine until needle clamp is just visible and point of needle is up from needle plate of machine approximately ½ inch.

Slide ruffler foot (A) toward presser bar of machine from the front. Allow fork arm (B) of ruffler to straddle needle clamp of machine at the same time ruffler foot (A) is guided onto presser bar. Tighten machine presser foot screw firmly.

PLACING FABRIC

Place fabric to be ruffled between the blue blades from the left. (Always pull fabric away from you to avoid breaking teeth on blade.)

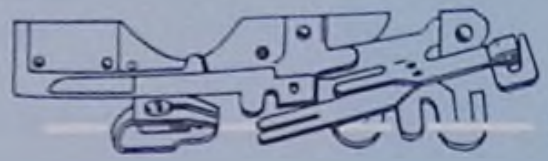
SETTING LEVER

The setting lever (C) makes possible the following adjustments:
Position "1" —A pleat (or gather) with every stitch.
Position "6" —A pleat every sixth stitch.
Position "12"—A pleat every twelfth stitch.
Position * Takes the action from feed blade putting the ruffler into a neutral or straight stitching position.

SEAM AND HEADING GUIDES

Guides for seams and ruffle headings make applying or enclosing a ruffle very simple. The heading guide (G) is adjustable and can be used for various heading widths when ruffle is being applied from the left. Seam guide will carry base fabric to which ruffle can be applied in one stitching when fabric is entered under ruffler from the right. Seam guide (H) will guide fabric being entered from the right.

Adjusting Fullness of Gathers



The size of pleats are determined by adjusting finger (D) at numbers on dial (E). To adjust fullness or set for pleats always raise fork arm (B) to its highest position, when needle will be out of fabric. Free the locking screw (F) and move finger (D) to desired fullness. Downward for pleats, upward for gathers. Tighten locking screw (F) to hold setting firmly. Insert fabric under attachment as illustrated.

With finger (D) down as far as possible the number 8 will be visible. This setting will produce the largest pleat, approximately ¼ inch. Pleats can be set close or far apart, depending upon length of stitch set on machine. The length of stitch to be used varies with each setting of adjusting finger (D). A little practice will enable you to pick the best setting.

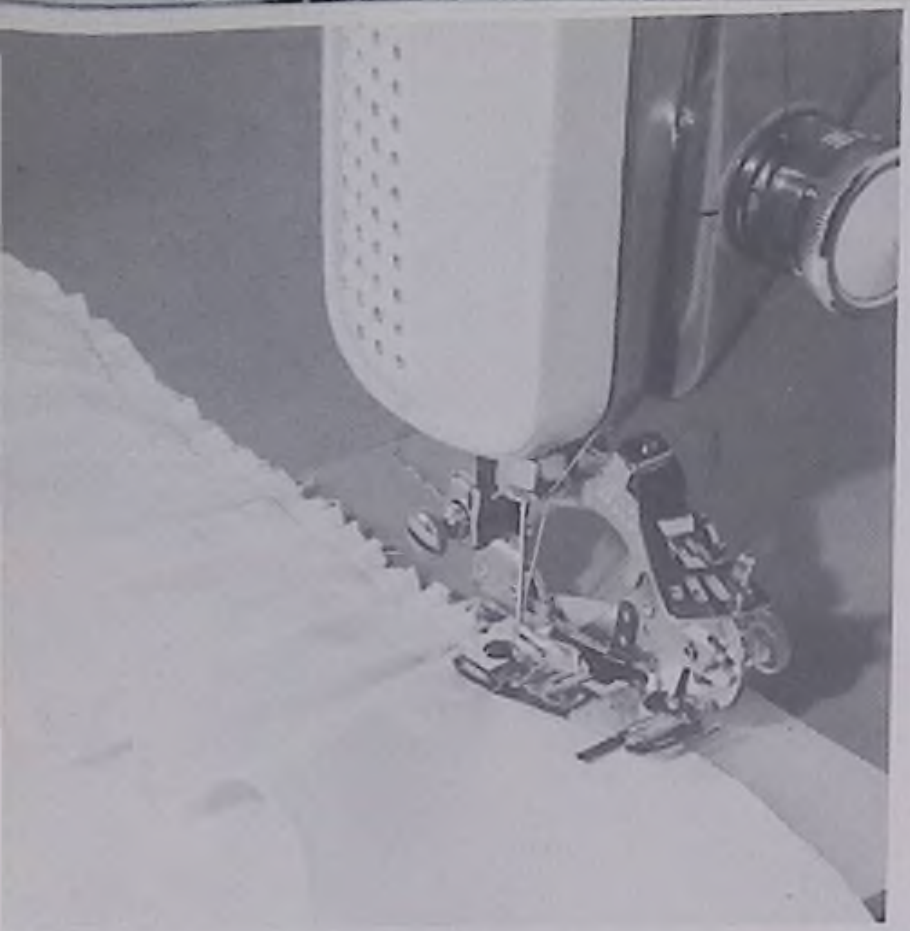
Moving the finger (D) upward to lesser numbers on the dial (E) will reduce the size of pleat. Only a very slight adjustment is necessary to change the setting.

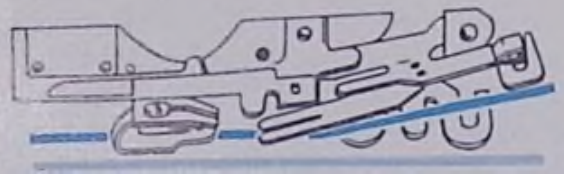
Raise finger (D) upward on dial (E) as high as it will go and straight stitching will result.

Move finger (D) downward on dial (E) to "1" for scratch gathers. "2" for scant gathers and "3" for moderate fullness—all depending upon stitch setting on your machine.

With machine stitch set at "2" or "3" and finger (D) at "1" or "2" on dial (E) a very fine close gather will result. The longer the stitch on machine, the coarser the gathers in ruffle. Be sure to try both ruffler and machine stitch setting on fabric being used to determine fullness desired in ruffle.

To determine amount of fabric required after fullness of ruffle has been decided, cut off five inches of gathered ruffle. Rip out these five inches. If the ripped fabric measures ten inches, double the amount of straight fabric will be required to cover a given ruffle length. If ripped ruffle measures 7½ inches, one and one half of the amount of fabric will have to be cut for ruffling.





RUFFLING AND SEWING TO A GARMENT

You can gather or pleat a ruffle and attach it to a garment at the same time. Place fabric to be gathered or pleated right side down between the blue blades from the left. Place garment to which ruffle is to be attached right side up under ruffler. Set ruffler for amount of fullness you want and stitch. The garment and the ruffle will then be stitched together.

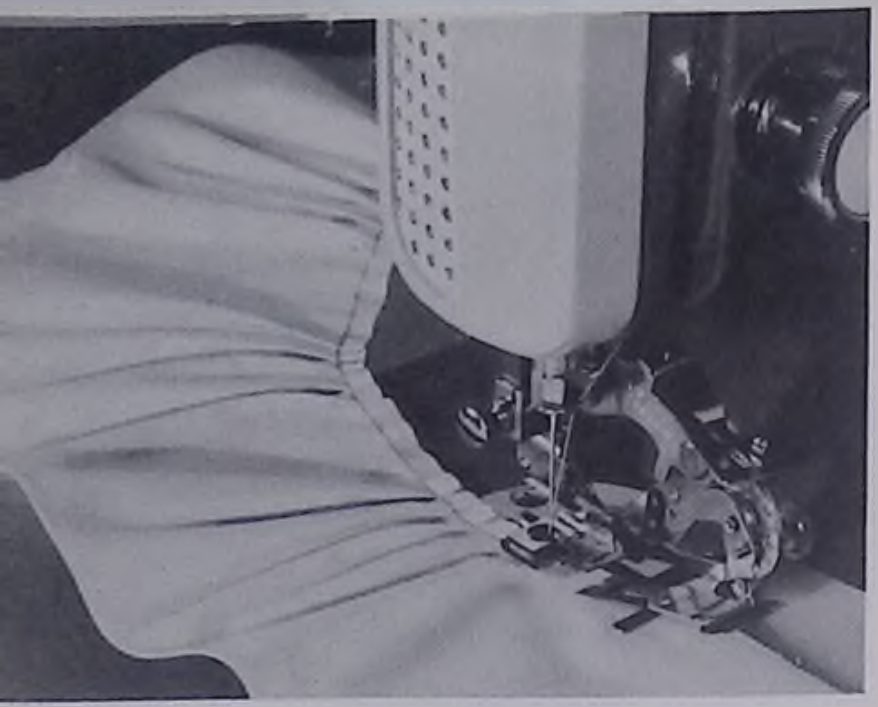
You can also sew a ruffle with a heading to the right side of a garment. When you do this, place the garment right side up under the attachment. Place the hemmed ruffle heading right side up between the blue blades and guide it against the adjustable heading guide (G).

MAKING NARROW WIDTH RUFFLES WITH FACING STRIP

You can gather or pleat ruffle and attach it to garment with a facing strip at the same time. Place ruffle to be gathered or pleated right side down between blue blades. Place garment right side up under the ruffler. Place facing right side down on top of blue blades. Set ruffler for the amount of fullness you want, then stitch.

MAKING NARROW WIDTH RUFFLES WITH PIPING

Place fabric to be ruffled right side up between blue blades. Put a folded binding strip (¼ inch) through the piping slot, folded edge of piping toward the left. Place garment right side down on top of blue blades. Set ruffler for amount of fullness desired, and proceed to stitch piping and fabric together in one operation.



GROUP PLEATING

Pleats can be stitched in groups by using the "*" setting on setting lever (C). For wide pleats, set finger (D) all the way down on dial (E). Then set lever (C) in slot "6" or "12". Now set stitch indicator on a short stitch for pleats close together, or on a longer stitch for pleats farther apart. Insert fabric between the blue blades. Make a group of pleats 3, 4 or 5 in a cluster. Then set lever (C) on "*" setting and stitch the distance to the next group of pleats. Again set lever (C) into slot "6" or "12" and repeat as above.

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